The Builder.

VOL. LX. No. 2524 SATURDAY, JUNE 20, 1891.

ILLUSTRATIONS.

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Bookbindings at the Burlington Club.

THE collection of bindings now on view at the Burlington Fine Arts Club forms one of the artistic events of the season, and not one of the least interesting; indeed, as far as general visitors are concerned, it seems to be a good deal more attractive than some of the collections of water-colours, engravings, and etchings which have been seen at the Club from time to time. This is perhaps partly because bookbindings are a class of work largely sought after by those who are called collectors, and who naturally cluster round an exhibition of the objects of their own particular fancy. Our interest in the exhibition is rather from the artistic than the collector's point of view. The collector too often developes an exceedingly artificial taste in regard to work of this kind, valuing a binding according to its rarity or its specially typical illustration of the work of a certain artificer or a certain period. It is the business of the art-critic to put aside this conventional standard, and consider such a collection as an illustration of the extent and nature of the design which has been applied to the backs of books.

The collection is said to be still incomplete; it is quite certain that the catalogue, inconveniently sumptuous as it is in size and margin, is very incomplete indeed. The books are conveniently arranged in cases marked by letters of the alphabet, the examples in each being numbered separately; but several of the cases are entirely omitted from the catalogue as it at present stands. We may take the collection, however, as a tolerably representative illustration of the principal types of design which have been used in bindings, and on the whole it can hardly be said that in this sense it tends to raise our ideas as to the scope and variety of the art, considering the long time it has been practised. Mr. Prideaux, at the close of his prefatory essay attached to the catalogue, laments the want of invention in modern binding. "Binding," he observes, "can never again become a fine art unless invention goes hand-in-hand with the execution which now leaves nothing to be desired. In other departments of decorative art we see the same inability to escape from the traditions of the past, but in none has there been such servile copying of the old models as in the decoration of books." Not even in stained glass, for instance? While it is true, however, that modern æsthetic binding seems very much confined to the imitation of old types, one cannot but observe, in looking at the old examples, how exceedingly few in number are the recognisable types, how little variety of artistic invention has been applied during two or three centuries to this very largely-used class of object. As to the principle of application of design, bindings may be broadly divided into those which accentuate certain portions of the cover, such as the edges, centre, or angles, and those which spread a decoration over the whole superficies of the book. Innumerable forms might be designed on either of these principles, of course; but of the collection at the Burlington one can hardly recognise more than four different ideals of design. There is the old-fashioned binding produced by square stamps, generally applied so as to form panels and bands arranged in parallelogram fashion. There is (by far the largest type) that in which the main feature in the design consists of interlacing strap work, usually accompanied by floral ornaments which twine in and out of the strap lines; there is the powdered or diaper design, consisting of the repetition of a small feature all over the back, just confined by a narrow border round the edges; and there is the ornamental edge border of repeated figures with the angles accentuated by little incidental designs fitted into them. There are rich variations in detail in some of these types, but the repetition of ideas and the paucity of invention is remarkable. Occasionally we meet with an exceptional example in which there is some special invention and freedom of design, but in a general way it must be felt that the art of the bookbinder has moved on rather narrow and conventional lines.

Of the early class of stamped bindings without gilding there are two cases, English and Foreign, the majority of the sixteenth century, but a few going back to the thirteenth and twelfth centuries. Of these the oldest is the Winchester Domesday book, "Liber de Terris Regis Reddentibus Langabalum et Brugium in Winton," lent by the Society of Antiquaries. This specimen aptly illustrates the special feature of the stamped binding, in which the decoration is formed by a stamp impressed successively on different portions of the cover. Here there is in the centre a double impression of a large coarse circular stamp, forming two circles one above the other within a border. With the smaller square stamps wide bands were formed by the successive impression of the stamp along lines parallel with the edges of the cover, the slight inequality and irregularity due to the shifting of the stamp having rather a good than a bad effect, giving a little play to the lines and texture to the surface, the opposite of mechanical hardness and correctness of execution. This is well illustrated in the example No. 10, case A, from the Durham Cathedral Library, in which the stamps form a succession of small square panels with a decorative design in them. In later days stamped ornaments were produced by circular stamps made to roll over the leather, thus securing continuity of repetition and saving of time, with the loss of the picturesque texture of the old square-stamped covers. Dingy-looking these old ungilded tomes are, but they present much interesting detail when studied, and their heavily-ridged backs have a monumental appearance which adds a kind of impressiveness to them. Among the foreign examples in case B, the binding of the "Horæ Beatæ Mariæ Virginis," by Bloc of Bruges (1520), shows a panel stamp with figures of animals. Among the German examples in this case are two interesting buckskin bindings, 40 and 41, the first with portraits of Luther and Melanchthon in panels, and a delicate little leaf border round it.

Case C contains some Oriental bindings, of which we may observe, what is the case perhaps in no other class of work exhibited, that the modern bindings are as fine as the old, or finer. In fact, the majority of these are of the seventeenth, eighteenth, and nineteenth centuries, and the latter are the richest and most effective. The outside and inside covers of the "Gulistan of Shek Muslihúd-din," bound by Abdul Rahman, hereditary binder to the Court of Delhi (1860)

is a rich and sumptuous example of gold arabesques, leaving at intervals the blue ground in the shape of an irregular panel; and the outside cover of the Koran, in the same style and by the same artist, is even finer. Among the specimens in this case is a curious Persian lacquer binding, belonging to the early part of this century, representing the court of Fath Ali Shah, a composition in a flat decorative manner with a number of figures.

In case D, in which we come to tooled bindings, is a remarkable example, "St. Augustini de Civitate Dei," lent by Mr. Alfred Huth. It is covered with gilding, with a bold design in strap-work intertwined, the pattern filled in with red. In case F is another peculiarly fine strap-work design, French; "Lazius de Gentium" (1557); the strap-work is on a dark ground, and the inner side of it defined by double lines, a beautifully-refined scroll-work foliage design meanders around and twines through the strap-work. This is lent by Earl Spencer, and is described as "bound for Grolier." Another Grolier binding of somewhat marked character is No. 8, case F, a Cicero. The strap-work takes a bold form covering the whole back, a kind of diamond with ogee sides and foliated at the points; within this are two triangles crossed; around the edge is a marginal ornament formed by linked hexagons. This is an Italian binding of the early sixteenth century, and is noticeable as treating the ordinary elements of this class of design with a good deal of individuality; it is dated 1485 and belongs to the Queen. Another striking design of the strap class in this case is Mr. Toovey's copy of Poliphilo (No. 24), the straps here are unusually broad in proportion and free and flowing in line; they are inlaid with different colours; gilt flowers twine through them in the usual way. This is a Venetian binding of the date 1545. In case G another Italian binding of the sixteenth century strikes one as very effective, though of very simple elements; this is Earl Spencer's "Psalterium" (1513), with four fine cameo heads near each angle of the cover; the remaining surface is covered with a small powdering formed of triple and quadruple assortments of dots alternately. It was felt perhaps that the diaper ornament should be such as not to interfere with the interest of the cameos.

The large case, I, at the top of the room, contains a number of fine specimens of French binding of the sixteenth and seventeenth centuries. An interesting object among these is a copy of Alberti's "Art de Bâtir," in very handsome binding with the monogram of Henri II. and Diana of Poitiers. This case illustrates some special classes of bindings, especially that in which the ornament consists simply of a powdering of some small repeated design over the surface, with a bounding line round the edges. There are several fine and large-size specimens of this type of binding, (Nos. 14, 47, 49, 59, 60*a*, &c.) in which any kind of object seems to be accepted for the powdering—a monogram, or flower, or dolphin; the latter, which occurs in two examples, of course referring to the Dauphin of France. It cannot be denied that the decorative effect of these powdered bindings is good, especially on a large book, though the thought that goes to making them is about as little as may be. Other means of producing this "all-over" decoration are illustrated in No. 21 I, where the space is divided by crossing lines into diamonds alternately filled with the owner's monogram and two triangles crossed; a better example is the Plautus, No. 36 I, covered with small oval divisions each with a floweret in them. An important example is the binding by Le Gascon, No. 61 (seventeenth century), as this furnishes a rich example of a type which is being largely imitated in modern days. It consists of a large or ruling pattern executed in strap-work in which convex and concave curves are combined in such a manner as to leave irregular open spaces between, with the same opposition of curves; the spaces are then filled with very delicate tooled scroll ornament. The treatment of the curves in the principal design produces a happy effect, relieving the design from formal symmetry; J. Zaehnsdorff's binding, No. 41 in case Q, is obviously based on this class of French work, or rather is a direct imitation of it. Case I also illustrates the fancy for binding in plain red morocco with no ornament whatever; a taste apparently devoted especially to small editions of the classics. We find also among the seventeenth-century French books specimens of the border decoration only, which in modern days, at the earlier part of the century, became so prevalent in English designs.

In the English bindings of the seventeenth century in case M we first find a marked tendency to emphasise the angles of the cover, as in Nos. 4, 5, and 7, the latter a white vellum binding with a rich radiating ornament in the angles, and the remainder of the space powdered, with the arms of James I. in the centre. Two Aristotles, Nos. 14 and 15, show again strongly accentuated angle treatment. A small narrow volume of the Psalms (26) is a very artistic example, with narrow strap-work dividing it into panels completely filled with small floral decoration. Nos. 34, 35, 36, and 37 show other varieties of the small diaper system of decoration carried all over the space. In No. 34 this consists of a small trellis leaving diamond-shaped compartments which are alternately filled up solid with gilt lines, and decorated with a sprig in the centre. No. 37 is a better design, consisting of small compartments nearly circular, each ornamented with a sprig; the curved lines have a better and richer effect than the straight-lined trellis. In case N, No. 2 should be noticed, a large bible (1660) of very bold and rich design, divided into panels filled up with minute surface ornament and leaving a blank quatrefoil in the centre of each; the spaces outside these panels are occupied by large bold flowing sprigs of foliage of fine design: there is a special character in this which distinguishes it from the general run of the book designs. In five very fine specimens in case N, Nos. 18 to 22, we have examples of the effect to be got by silvered strap-work and the partial use of inlay of different colours in the ground; these are filled up with a profusion of minute tooled scroll-work design; in No. 18, the finest of the five, the outlines of the ornament are formed by minute gold dotting, producing a much softer and richer effect than lines. A red morocco bible of the eighteenth century (No. 26), covered with gilt tooling, is an example of the tendency to elaboration and sparkle without breadth or richness of effect which characterises so much of the more modern binding as compared with examples of a century previously. A prayer-book (No. 44) is an example of special character in design, the gilt tooling being arranged so as to develop a cross on the black morocco ground, the top and bottom being panelled in a kind of pediment shape, with the spandrels filled up with tooled design. No. 36, a bible, in the same case, is the first example (eighteenth century) of a device which is found again in Nos. 18, 31, and 32, in case O, of treating the centre portion of the cover with tooled lines radiating from a centre and forming a circle at their termination; a poor and rather claptrap form of design which appears to have been popular at one period. In case O No. 23, an English eighteenth - century binding illustrates the bad effect of square crossed lines; this is strap-work carried in lines parallel to the edges of the cover and interrupted by circles or half-circles at the angles; a poor and mechanical type of design, the earlier suggestion for which seems to be found in the Italian binding of the seventeenth century, No. 4 in case P. In this latter case is a very artistic "probably French" binding of the seventeenth century (No. 15), in which the back is divided up the centre by a thin double vertical line, from which central axis beautifully-designed sprays of foliage design seem to emanate, not symmetrically, but with almost the freedom of nature, though quite sufficiently conventional in detail. This is a suggestion of the kind of feeling which we want to see more developed in bindings; a departure from mere formal lines and the employment of free and unfettered decorative design. Not that we would have all bindings adopt such a type; many of the symmetrical types are very fine and very suitable for their position; but the more free and fanciful type of design has been little developed in comparison with the symmetrical forms.

In case Q are some examples of the work of that eccentric enthusiast in his art Roger Payne, who gloated over his own work in such glowing terms in sending in his accounts: "the outsides furnished in the highest taste with ornamental corners of oak leaves and small tool" . . . "Finished very neat, lettering very correct, and is a specimen of curious Russia work, not clumsy, but exceeding neat" &c &c. Roger's pride in his honest workmanship was quite justifiable in one sense, but he was mistaken in thinking himself an artist in designing. In the preface he is referred to as the only English binder who invented a style of his own; this may be, but the style is worth very little, consisting only of widely-spaced parallel lines round the cover, and a thin kind of ornamental wriggle inside, with similar wriggles in the angles between the lines. Among the nineteenth century English designs most are, as is remarked in the preface, imitations of older types; here and there are some which possess a special character and good taste. An Anacreon (Q 24) by H. Walther, is merely a red back with two double parallel lines at a little distance round the edge, their angles connected by a double triangle figure at the corner; it is this detail which gives the *cachet* to it, simple but in good taste. Staggemeir's binding of Wood's "Zoography" (Q 27) attempts a symbolical design in an ornamental border of small animal figures, well carried out; this kind of allusion in the binding to the contents of the book is an idea not to be neglected, though it may be carried too far: here it is kept quite subordinate and conventional. A binding by F. Bedford (Q 34), a rich gold tooled diaper based on quatrefoil forms, is a fine and artistic piece of work. French bindings of the eighteenth and nineteenth centuries are collected in Case R; they are not very remarkable in design for the most part. A Decameron by Simier (R 37) is a fine bold design in broad strap-work, and Padeloup's Decameron (6) (eighteenth century) is a good binding of a diaper pattern based on waved vertical lines touching at the apex of the convex curves and forming small panels. Padeloup's "Heures" (7) is another good example. The most noteworthy of the nineteenth-century French bindings, however, is one in a grave and severe style, a folio, "Myriobiblon" (R 28) by P. Bozérian Jeune. This is a dark calf binding with a border formed by parallel lines, the space between which is filled by multitudinous gold dottings just suggesting a pattern without defining it, giving a rich and unusual effect; the centre portion is decorated by two large lozenges, defined by thin lines, overlapping each other and leaving a smaller lozenge in the centre defined by double lines with blind tooling between: the outer angles of the lozenges are very slightly decorated. The idea is very simple, but the slight amount of ornamental detail is most delicately designed and executed, the whole forming a binding of sober and monumental character and in perfect taste.

The collection leaves one with the impression that there is a great field open for new invention in high-class binding. The last-named example suggests the idea of variation in character in relation to the nature of the book which is to be bound, an idea which Mr. Cobden Sanderson has strongly insisted upon. Because some bindings should be rich and fanciful there is no reason why others should not be severe and monumental in character, —there is room for both. The binding

should in a distant and symbolical manner suggest the character of the book which it covers. This will not be achieved, however by the clever imitation of old types, however good in themselves. Original thought must be brought to bear on it.

IRON JOISTS AND STANCHIONS.

BY W. DUNN, A.R.I.B.A.

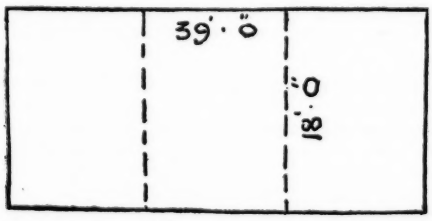
THE two diagrams published herewith are intended to save the labour of calculation in determining the sizes of rolled iron floor-joists, and the necessary sections of cast-iron stanchions.

The table of rolled iron floor-joists is calculated for an equally-distributed load of 1 cwt. per square foot, including the weight of the floor.

The weight of a crowd of people on a floor could not exceed 84 lbs. per square foot, and the weight of a wood floor, even of large span, will be under 28 lbs. per foot. But the question of the maximum load to be provided for is intimately connected with the maximum stress produced by it in the metal. Here that maximum stress has been taken at 5 tons per square inch, so that a sufficient reserve of strength is provided for casual and temporary excess of load. The tables showing the strength of the various sections of rolled-iron joists, published by the merchants, are usually calculated for a stress of about $6\frac{1}{4}$ tons per square inch, so that this diagram gives approximately the same results as if we had reckoned the floor load at $1\frac{1}{4}$ cwt. per foot, and taken the limit of safe stress adopted by the merchants.

As examples of the use of this table we may give the following:—

1. The floor of a room, 39 ft. long and 18 ft. wide, is carried on two rolled iron



joists, which divide it into bays of 13 ft. What is the necessary section?

Here the span is 18 ft., and the distance from centre to centre of joists is 13 ft.; that is, the area of floor carried by each joist is 18 ft. by 13 ft.

Find the intersection of the 13 ft. horizontal with the 18 feet vertical; the curved lines cutting that vertical above the intersection show the joists which may safely be used. 12 in. by 6 in. by 56 lbs. per foot run would probably be the most convenient; 15 in. by 5 in. by 52 lbs. would be the lightest.

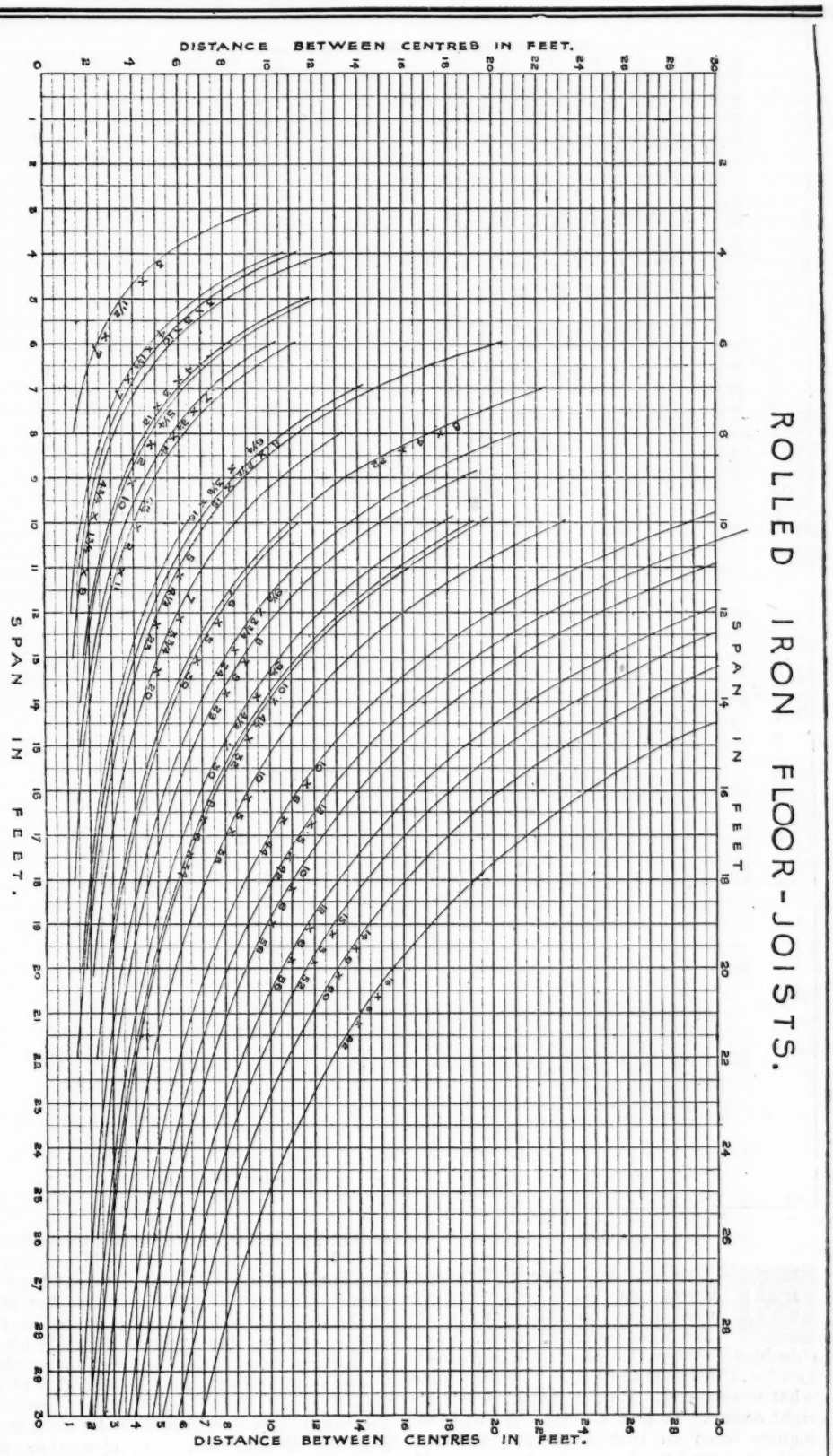
2. The floor of a long room, 18 ft. wide, is to be carried by rolled iron joists, 10 in. in depth. What is the necesssary section, and what is the maximum distance apart?

The span being 18 ft., on the eighteenth vertical find the intersections of the curved lines of the 10-in. joists. By noting the corresponding horizontal divisions we find that:—

a 10 in. × $4\frac{1}{2}$ in.	× 32 lbs.	may be used	6 ft. apart,
or a 10 in. × 5	„ × 36	„ „	7 ft. 1 in.
„ 10 in. × 6	„ × 44	„ „	8 ft. 11 in.
„ 10 in. × 6	„ × 56	„ „	11 ft.

If we may adopt any or all of these divisions, and desire to know which entails the least weight of metal, we must divide the weight per foot run by the distance apart. The result is the weight of iron required per square foot of floor area.

The diagram (see next page) showing the area of metal required in cast-iron stanchions of H and □ section is calculated from Gordon's formula, given in the corner of the sheet. The factor of safety is given by various authorities as one-fifth, one-seventh, and one-tenth. If the centre of the load coincides with the vertical axis of the stanchion,



then one-fifth is probably sufficient; but we can rarely ensure that, and it is better to take one-tenth to allow for unforeseen deviations, such as are caused by the deflection of beams or by unequal loads, bringing the centre of pressure nearer one edge of the pillar. The diagram is calculated for both factors, however.

As an illustration, it is required to know what area is required in a H section 12 ft. long and 6 in. least side, bearing a load of $56\frac{1}{2}$ tons. The height is thus twenty-four times the least diameter. On the vertical line corresponding to the load find the intersection of the raking line marked 24, and follow the corresponding horizontal line to the end, where we find that with a factor of safety of one-fifth, 24·7 square inches, or with one-tenth, 49·5 square inches is required.

Thus, adopting one-tenth, a section H, 6 in. by 20 in. and $1\frac{1}{2}$ in. uniform thickness would be suitable.

By the aid of these diagrams we are enabled to save a great deal of arithmetical labour hitherto necessary each time a floor-joist is required, or a stanchion is designed. The graphical form into which the results are put appeals more readily to architects than a series of figures, however complete, and shows more clearly the results of variations in the different factors such as the sections, spans, and distances apart in the case of the joists, or the ratio of the diameter to the length in stanchions.

MEMORIAL OBELISK, LEADHILLS, LANARK.—A memorial which has been erected at the village of Leadhills to William Symington, the inventor of steam navigation, was unveiled by Lieutenant-Colonel Hare on the 12th inst. The memorial takes the form of an obelisk of Greek design, about 30 ft. in height. It is of polished granite from the Ben Cruachan quarries, near Loch Awe. On the back and front are inserted bronze medallions, the front being a portrait medallion of Symington. The medallion at the back represents a model of the *Charlotte Dundas*, the boat in which Symington first successfully applied his invention. The memorial is the work of Messrs. Wm. Mossman & Co., Glasgow. It cost over 300*l*.

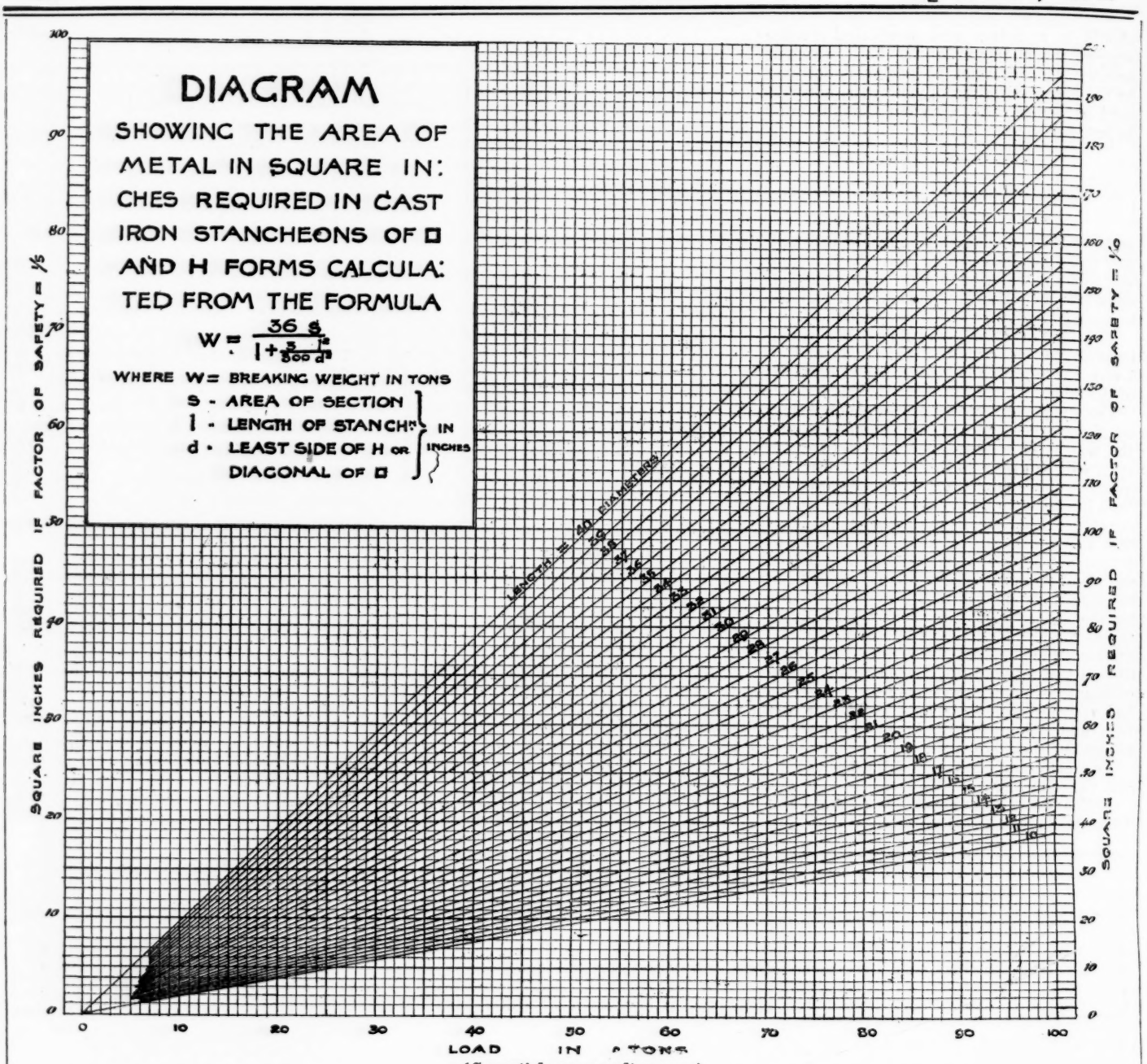


DIAGRAM
SHOWING THE AREA OF METAL IN SQUARE INCHES REQUIRED IN CAST IRON STANCHEONS OF □ AND H FORMS CALCULATED FROM THE FORMULA
$W = \frac{36\,S}{1 + \frac{3}{500}\frac{l^2}{d^2}}$
WHERE W = BREAKING WEIGHT IN TONS
S - AREA OF SECTION
l - LENGTH OF STANCH^N IN INCHES
d - LEAST SIDE OF H OR DIAGONAL OF □
SQUARE INCHES REQUIRED IF FACTOR OF SAFETY = 1/5
SQUARE INCHES REQUIRED IF FACTOR OF SAFETY = 1/6
LENGTH = 40 DIAMETERS
LOAD IN TONS
0 10 20 30 40 50 60 70 80 90 100

(*See article on preceding page*)

NOTES.

ON Tuesday, the House of Commons Committee which has been investigating the Bill promoted by the Manchester, Sheffield, & Lincolnshire Railway Company for a new line to London, threw out the Bill. This was somewhat unexpected. But, in truth, it was the right course. It had become evident as the inquiry went on that a mistake had been made in regard to the London terminus. To sanction part of the scheme would have been unreasonable. But it also became apparent as time went on that the public need for such a trunk-line was much less than the promoters asserted. It also became clear that by agreement the Great Northern Railway was, in a sense, a partner of the Sheffield line, and that the Bill was an attempt by one partner to break an agreement long acted on. If such agreements are of any value they cannot be set aside lightly. Of course, it is said that Sir Edward Watkin will re-introduce his Bill next year, but we doubt if it will have greater good fortune. The Committee which has considered it was one of the best that has been seen for a long time, and there is no reason to suppose that its decision is wrong.

MR. SMITH, in the House of Commons on Tuesday, announced the fall, for the present session, of several important measures. The Private Bill Procedure (Scotland) Bill is abandoned. Thus a useful reform is deferred, and for some time longer Scotch private Bills will still go before Parliamentary Committees. But the change is only deferred; eventually it will take place. The Government hope to pass the Industrial Assurance Bill, but it is obvious that they have much doubt on the subject, and we think that it is hardly likely to become law during the present session. Then the Public Trustees Bill has also to go. The fact is, that unless the House of Commons gives much more of the work to be done by Committees, it is altogether impossible to pass more than a few of the measures which are introduced by the Government early in the session.

THE Railway Rates Inquiry is being pushed on by the Joint Parliamentary Committee, the chairman (the Duke of Richmond) making a very urgent appeal to the disputants last week to reduce the number of amendments as far as possible. A large number have accordingly been withdrawn, it being recognised that should the inquiry be unduly protracted, it will run on to the end of the session, and the whole matter consequently stand in danger of being shelved once more. This would be unfortunate, as all concerned are getting tired of the controversy, and are desirous of a settlement; and although there is a feeling of uncertainty as to what the effect of the new system may be, and a natural disinclination to risk the loss of advantages which have been gained at previous stages of the inquiry by undue precipitation at this point, there is a general desire to see the scheme in operation. The last few sittings of the Committee have been devoted to technical details affecting the classification, which are of more concern to the agricultural community than to the building and engineering trades,—the question of rates for conveyance of milk, for instance, occupying a considerable time, and resulting, for once, in a reduction of the Board of Trade proposals.

IN regard to his drawing of the National Gallery Front in the Royal Academy, Professor Aitchison wrote to the *Times* of the 12th to the effect that his modification of Wilkins's building arose from the conviction that Wilkins "would have enforced the ends of his front and have put domes of less importance than the central one to complete the composition." It therefore appears that the drawing in the Architectural Room at the Academy is Professor Aitchison's own speculation as to what Wilkins might have done if he had been allowed his own way, and does not rest on any documentary evidence. This of course does not affect its value as a design, perhaps rather increases it; but it puts the drawing on a different footing from what we had supposed. Touching the subject of Trafalgar-square generally, we observe a suggestion by Mr. C. Roberts, in a recent letter to the *St. James's Gazette*, that the balustrade and terrace should be removed from the north side of the square and replaced by a large flight of steps back to the

roadway. His argument is that the balustrade and terrace obstruct the way through the square, and that the terrace is only a refuge for tramps. This is a practical objection, but we do not think such degree of architectural effect as the square and the National Gallery can be said to have would be improved by the change.

IN a letter in the last number of the *Journal of Proceedings* of the Institute of Architects, Mr. Arthur Cawston calls in question the system of intermediate ventilated passages between wards and water-closets in hospitals and other buildings of similar class, and says he is informed that much pulmonary illness is due to this. What he suggests is that if the closets were kept at a higher temperature than the wards the suction would be the other way, and that the intermediate cross ventilation passage might be dispensed with. This is a rather serious alteration in the principle of planning hospital wards. No doubt if the air from the water-closets can be entirely prevented from contaminating the air of the ward without the interposition of the cross-ventilation passage, so much the better; but it would require a very certain and well-arranged system of extract from the water-closets to ensure that it would not do so under these circumstances. Perhaps it might be ensured by an intermediate passage without cross ventilation, but with a powerful extractor at the top. Mr. Cawston goes on to urge that in private houses also the water-closet should be kept at a higher temperature than the rest of the house, in order that the pull may be *from* the house into the closet, and not from the closet into the house; and he adds that in winter the only window always open in a private house is the water-closet window, which thus becomes the feeder for the ventilation of the house. We can tell him of one private house, at all events, where the staircase windows are open all the year round; and the idea that the water-closet should be kept warmer than the rest of the house, for the reason named, was advocated in our columns long ago. Of course, to do this efficiently presupposes a hot-water heating system; but it may be done to some extent, as we pointed out before, and as Mr. Cawston now repeats, by an upcast ventilating shaft with a gas-burner in it.

THE Architectural Association are proposing to publish by subscription a memorial volume to the late J. D. Sedding, consisting of about thirty plates of examples of his work, accompanied by a portrait and a short memoir. The volume is to be in about the same size and form as the Architectural Association Sketch-book, and it will be issued if the names of at least one hundred and fifty subscribers at one guinea each are obtained. Only a limited number of copies will in any case be printed. Intending subscribers are asked to send their names to the Hon. Secretary of the sub-committee for this purpose, Mr. E. W. Mountford, 17, Buckingham-street, Strand.

THE Eleventh Volume of the "Transactions of the Sanitary Institute"* contains the report of last year's Congress at Brighton, and is full of interesting matter to sanitarians. As usual, we gave a report of the proceedings of the Congress at the time it was held,† but no doubt many of our readers will be glad to possess the whole proceedings of the Congress in a compact form. The most noticeable papers in the volume are the inaugural address by the President of the Congress (Sir Thomas Crawford, K.C.B., M.D., &c.); Dr. Poore's address on "The Living Earth" (a vigorous appeal for the application of excrementitious matters directly to the earth, and a strong denunciation of water-closets and the water-carriage system as wholesale manufacturers of typhoid); Professor Roger Smith's paper on "Baths"; Alderman Hallett's paper on "The Brighton Waterworks"; the Borough Surveyor (Mr. Francis J. C. May)'s paper on "Brighton as a Health Resort;" Mr. R. F. Grantham's paper on "The Disposal of the Sewage of London upon the Maplin Sands;" Mr. Francis Hooper's paper on "Artisans' Dwellings;" Mr. W. Topley's address on "Geology in Relation to Hygiene;" Mr. W. H. Preece's lecture on "The Sanitary Aspects of Electric Lighting"; Mr. R. E. Middleton's paper on "Waterworks Regulations"; and the Hon. F. A. R. Russell's paper on "A National Health Service." There are several other interesting papers which we have not space to enumerate, and altogether the volume is one which presents much suggestive matter to the student of sanitary matters, although there are many points in some of the papers to which we could take exception, and with which, in fact, disagreement was expressed in the discussions at the Congress.

* London: Edward Stanford. 1891.
† See *Builder* for August 30 and September 6, 1890.

AT the second *conversazione* of the Royal Society on Wednesday evening last, Professor Norman Lockyer exhibited some photographs of the Temples at Karnak and Edfou, with reference to their orientation. He stated his belief that they were constructed for astronomical purposes, and gave several reasons in support of this view. He further remarked that, assuming his hypothesis to be an actual fact, it would be possible by means of calculations with regard to the obliquity of the ecliptic to prove the age of the temples. We may point out, however, that owing to the differences of opinion as to the time required to effect the astronomical changes alluded to, it would not be possible to fix their age to within 400 or 500 years. Still that is something. Mr. Shelford Bidwell showed a nickel pendulum, illustrating the effect of heat upon the magnetic susceptibility of that metal. Nickel, which at ordinary temperatures is a magnetic metal, becomes non-magnetisable at about 300 deg. C. Mr. J. Joly exhibited the "Meldometer," an instrument for determining the melting points of minute quantities of substances, by comparison with bodies of known melting point. The method consists in measuring the thermal expansion of a ribbon of pure platinum when a minute quantity of a substance, dusted on its surface (and observed through a miscroscope) is melting. Messrs. Tiffany & Co., of New York, showed some art metal work illustrating the amalgamation of different metals. Professor W. Roberts-Austen had a new brilliantly-coloured alloy of gold and aluminium; whilst Professor Church exhibited specimens of Japanese metal work. Professor Sekija's model of the highly complex path pursued by a particle on the surface of the ground during the earthquake of Tokio, on January 15, 1887, was particularly interesting. Information respecting earthquake motion derived from this method may be applied in the construction of earthquake-proof buildings. Prof. J. J. Thomson illustrated a system of discharging without electrodes through gases; and Prof. Perry an indicator for engines, correct at the highest speeds. An instrument for examining the strains in bent glass beams, by Prof. Carus-Wilson, is of much practical value. It has been used to determine the action of "surface loading," and to show to what extent this action affects the state of strain in beams supposed to obey the Bernoulli-Eulerian theory of flexure. A number of designs were exhibited by Prof. Haddon, illustrating the geographical distribution, and the progressive and retrogressive evolution, of art and ornament in British New Guinea; and Prof. Newberry (of the Egypt Exploration Fund) showed a series of facsimile drawings in colour, executed by Mr. M. W. Blackden, of some of the most interesting paintings on the walls of the tombs of Ameni and Khnumhotep (XII. Dynasty, *circa* 2,500 B.C.), at Beni Hasan, in Upper Egypt. The conversazione was well attended and highly successful.

THE interesting exhibition which is open during this week at Carpenters' Hall, Throgmorton-avenue, expresses very clearly the connexion of the Carpenters' Company with technical education, and with the trade whose name it bears. The exhibition consists ostensibly of the works submitted in competition for the wood-carving prizes offered by the Company; but in addition to these there are shown many simple articles of wood, iron, and lead, mostly of a domestic nature, and showing capital workmanship, which have been made by the youths who attend the technical schools, which are doing such a useful work on the company's estate at Stratford. Around the walls are hung drawings made in the Construction Classes of King's College; these classes also are financially assisted by the Carpenters' Company, we understand. The most interesting part is undoubtedly the wood-carving, which is mostly applied to glove-boxes, clock-cases, picture-frames, and friezes and panels, mostly of Renaissance design. The workmanship is in many cases excellent, especially in the cases of the decorative treatment of foliage. The attempts at carving the figure are hardly so satisfactory, though we may except a small panel, No. 24, by Mr. Bull, which shows much grace of line, and a bracket by Miss M. S. Smith, of the School of Art Wood Carving, South Kensington. The first prize and bronze medal has been awarded to Mr. James Osmond, for a mantel-frieze and frame, which, though in high-relief, is a capital piece of work; for preference we, however, should name a small oak panel, by the same artist, which takes the second prize. We are informed that the next exhibition of this kind is to be on a much more extended scale. The efforts of the Carpenters' Company in the cause of technical education for the artisan class have our best wishes for their success.

ON Monday afternoon, the 15th inst., the Bridge House Committee of the Corporation of London visited the Tower Bridge works, and made one of their periodical inspections. Very considerable progress has been made with the steel work during the last six months, all the columns on both piers and abutments being completed. The overhead footways are now being commenced, and as these will be built out horizontally, at the height of 140 ft. above high water, they will form an interesting portion of the work. The masonry which is to surround the columns is also being proceeded with, and a large quantity of the machinery for working the hydraulic lifts and central span is now being fixed. Each of the main pivots for the opening span weigh 28 tons, and these are now being delivered at the site. It is very satisfactory to learn that during the last eighteen months there has not been a single accident of a serious character.

THE marble head of an athlete which was exhibited to the Society of Antiquaries last week was found in a well in Arundel-street, Strand, where some new premises, the "Clock House," are being built, and we understand that it is claimed to be a relic of Lord Arundel's collection. If this be so, the fragment comes before us as a silent witness to events of more than two hundred years since. For Thomas, only son to Philip, Earl of Arundel,* bought of W. Petty the statues, busts, and inscribed stones which had been discovered in Paros, *circa* 1610. Earl Thomas deposited these in the rooms and gardens of his riverside house by the Strand. The statues in the garden evoked Bacon's exclamation, "The resurrection." There they remained until Selden and Evelyn prompted his grandson Henry, afterwards sixth Duke of Norfolk, to present most of them to Oxford University

* Eldest son of Thomas, fourth Duke of Norfolk beheaded 1572. He inherited from his mother the feudal earldom of Arundel: died in the Tower, 1595. The honours of Arundel and Surrey were restored to Thomas by James I.

(1667): his library he gave to the Royal Society, who had held meetings at his house. In J. T. Smith's "Antiquities of Westminster" is a plan of the house and garden, copied from Ogilby & Morgan's large-scale plan of London, etched by Hollar. The site lay between Milford and Strand-bridge, since Strand, lanes. The house had been an "inn" of the Bishops of Bath and Wells; close by were the Holy Ghost Chapel, the parish church of St. Mary Ursula and the inns of the Bishops of Chester, Llandaff, and Worcester, and the Strand Inn of Chancery, all taken for Edward, Duke of Somerset's new house. King Edward VI. bestowed Bath Inn upon Lord Thomas Seymour, after whose execution it was bought for 41*l.* 6s. 8d. by Henry Fitz Alan, Earl of Arundel, whose daughter and heir, Mary, was first wife to Thomas, fourth Duke of Norfolk. The house, repaired with some of the marbles, was pulled down in 1678, but the property on its site has, we understand, always belonged to his successors in the title. Hollar's etchings, after Adam & Bierling, 1642., prized by collectors, of the court-yard and other portions, show that the buildings, excepting the great hall, were mostly of a mean character, low in elevation, and gabled. The court-yard and principal apartments ranged midway between the Strand and the river, next against Milford-lane, on ground now traversed by Arundel-street. Earl Thomas gave lodgings to Hollar, who is reputed to have done some of his best work here, including a view of the town as seen from the roof looking eastwards.

THE Secretary of the Metropolitan Public Gardens Association writes, apropos of the late omnibus strike, as to the need for more seats in or near public thoroughfares. He also points out that though this Society frequently offers to put up seats, the Vestries will not allow it. It is much to be hoped that local bodies will amend the error of their ways in this respect. Many more seats are needed. In such a place as the Kensington-road, for example, there might be seats. Trees also go with seats, and there are various places in the metropolis where not only seats but trees might be placed.

ACCORDING to Section 15 of the Metropolitan Streets Act, 1867, it is unlawful between the hours of ten o'clock in the morning and six o'clock in the evening to unload coal on or across any footway, and also to draw or lower casks, whether empty or full, in the same manner. We doubt if the section is as well known as it should be, for there cannot be a doubt that it is constantly contravened. That, however, is not the reason we now refer to it, but it is in consequence of the recent decision of the Queen's Bench Division in the case of Fletcher *v.* Fields. The simple point was whether coals included coke, a quantity of which had been unloaded, in contravention of the Act, in Victoria-street. It was natural that the Court should decide,—thereby differing from a police magistrate,—that coal and coke were not the same, and that they could not stretch the Act so as to include the latter article. Of course, in common sense, the same law should be applicable to coke as to coal; the unloading across a footway of coke is as much an obstruction as the unloading of coal. But judges are not legislators, and if the unloading of coke is to be prevented between certain hours, the Act of 1867 must be amended by Parliament.

WE are constantly thinking that we have come across the most audacious proposal possible for fleecing the architectural profession by the process called "architectural competition," but we constantly again come upon propositions which seem to put their predecessors in the shade in this respect. The last specimen is an advertisement in the *Western Mail* for procuring designs for new schools in Glamorganshire, which runs as under (omitting the name):—

"Architects are Invited to Forward (Free of Expense) on or before Tuesday, June 30 instant, Plans and Specifications, and also an Approximate Estimate of the Cost (which must not exceed 15*l.* per head) of Building an Intermediate School at ———.

The School is to be a Dual School for seventy Boys and fifty Girls.

The Application to the Building Committee to be Anonymous, and the correct name and address must be sent to me in a sealed envelope, marked 'Plans, &c., for the Intermediate School, ———.'

No pledge is given by the Committee that any of the Plans, &c., will be accepted, but should either of the Plans be selected, a fee of 10*l.* 10s. will be awarded to the successful competitor, whose Plans will thereupon become the absolute property of the Building Committee."

We think it will be admitted that this beats the record for cool acquisitiveness,—architects are invited to send drawings, "free of expense," for a school which according to an average computation ought to be worth to the architect a fee of about 100*l.*, to a committee who do not pledge themselves to accept a single plan or to incur any responsibility or cost at all, and who if they do condescend to be pleased with one of the plans, will vouchsafe to purchase it from the architect for one-tenth its proper value. What sort of "architects" do the Committee expect to attract by such an offer? And how do they expect on such a system to fulfil their obvious duty to the community of providing that the schools they are about to build are constructed in a proper and sanitary manner?

ARCHITECTURE AT THE ROYAL ACADEMY.—VIII.

1,877. "Doorway, Foundling Hospital, Cordova;" and 1883, "Entrance to Capilla Real, Granada Cathedral;" Mr. F. W. Bedford. Two pretty and delicately executed monochrome drawings.

1,878. "Design for Altar-piece;" Mr. T. Cowlishaw. A painting of the Annunciation in a kind of florid Paolo Veronese style, with a highly ornamented Renaissance order as a framework to the painting; not very religious in taste certainly, but there is a certain vigour and spirit in it.

1,879. "Pulpit, English Church, Rome;" and 1,880, "Font, St. Michael's, Smethwick;" Mr. A. E. Street. These were illustrated and described in the *Builder* for May 30 last. They are shown in water-colour drawings. There is a quiet originality about both, but the font is much the best, and is a really interesting bit of design; the pulpit strikes us somewhat too "handrailey" in general appearance.

1,882. "Proposed Church, Sutton, St. Helens;" Messrs. Paley and Austin. A good pen-drawing of a Gothic church in which simplicity and solidity are the predominant qualities. The tracery shows Perpendicular character, but without cusping and with very substantial section of mullions and tracery. The tower at the crossing is very plain, except for a row of square-headed traceried windows in the upper story; the tower parapet is stepped up at the angles. The whole has a very satisfactory appearance.

1,885. "Interior, Sta. Maria dei Miracoli, Venice," Mr. H. L. Florence. A small water-colour interior looking towards the high altar, and the steps and tribunes preceding it.

1,886. "Painted ceiling, Loggia dei Nobili, Sienna;" Mr. F. W. Bedford. This is a little gem of a drawing of its class, showing with great delicacy and finish of execution a typical Renaissance ceiling design of unusual elaboration; one of those with lunettes containing figure subjects in each compartment, and the remaining space occupied with that extraordinary rigmarole of masks and wisps and twists of all kinds in which the Renaissance decorator delighted. It is impossible to call it good art as a whole, but it is of good design and drawing, in bits. The author of the drawing has taken a great deal of trouble over his daintily executed illustration.

1,887. "Proposed New Church at Ealing, View of Tower;" the late J. D. Sedding. Hardly one of the best of its late author's designs, but it is a striking and original treatment of a tower. The upper part of the tower is divided into three tall narrow bays by great mullions connected by arches at the top, these spaces being subdivided by mullions and panelling; in the centre compartment are windows above and below, with two bas-relief figures between. The lower part is flanked by octagonal turrets with the cupola terminations that Sedding was so fond of; and below is a porch with a large traceried window over, also flanked by turrets, this time battlemented, like the finish of the main tower. The tower stands between trees in a strongly coloured water-colour drawing, taken from a high point of sight.

1,890. "Design for New Municipal Buildings, Sheffield;" Mr. F. H. Tulloch. This should have been noticed in our first article on the municipal architecture in the collection, but was overlooked. It is a design in modern "Free Classic" style, picturesque in detail, but spoiled by the too-frequent repetition of the same form and height of gable; three gables all the same height and design along the front, each flanked by the same octagonal turrets; this wants point and centralisation. The diminishing open stages in the upper part of the tower are rather too pagoda-like in effect.

1,891. "Six Cottages at Elstree Herts;" Messrs. J. H. T. Woodd and W. Ainslie. Pretty country semi-detached cottages, which probably, however, owe their position to the pleasant and effective character of the picture, a pen-drawing in brown, in which they are shown.

1,893. "Design for a Frieze;" by Mr. Arthur Gwatkin; a capital bit of work, in which foliage is used in the undulating scroll form so common in Roman and Renaissance work, but with a different and somewhat more naturalistic type of foliage. The character of the whole thing, however, is sufficiently broad and conventional, and it is very rich and effective.

1,895. "Design for Billiard-room, Brooklands;" Mr. R. T. Blomfield. A sepia sketch, hasty but effective, of an interior with a wide fireplace recess flanked by square columns and with a decorated frieze over, in the long side of the room; at the end is an arched recess with its floor on a much higher level, a kind of "nook," and a kind of sofa appears to run across beneath it: but whether the young lady who sits jauntily on the edge of the upper floor with her feet on the sofa is illustrating the intended use of this part of the room is not apparent. There seems no other way of getting up than jumping on the sofa. It is a nice-looking room, however.

1,896. "Royal Masonic Institution for Girls, Centenary Hall: Design for the West Window;" Mr. E. Frampton. Rather an unusual window in arrangement; it is of the Perpendicular type, with many lights, four of the larger upper lights containing "Virtues," the smaller ones heraldic devices; the line of panels across the centre is occupied with scenes having some reference to the history or objects of the Institution, the arms occupying the centre panel; of the eight lower panels seven are occupied by the portraits of Grand Masters, the Prince of Wales in the centre, and the Royal Arms in the centre panel underneath. The filling-in of the compartments containing the portraits is well contrived and very decorative in effect; the window is of considerable interest, and will probably have a good effect as a whole.

1,897. "A Country Gentleman's House;" Mr. C. Spooner. This is a R.A. Travelling Studentship design; it shows two elevations of a stone house with mullioned windows and timber-gablets in the upper portion. A small plan is given, which does not seem arranged with much consideration as to its actual working, or lighting in some places. The elevations are pleasant, and suitable for the idea of a rural house.

1,898. "Congregational Church, Ashton-under-Lyne;" Mr. John Brooke. A good interior pen-drawing of a Gothic church with a hammerbeam roof, very orthodox, but presenting nothing to distinguish it from many other modern Gothic churches.

1,899. "Chimney-piece in Indian rooms in the New Hotel, Salisbury Estate, Thames Embankment;" Mr. J. Tavenor Perry. This is a sensational piece of work, apparently, but too high to be properly seen; it is a large fire-place, designed with Hindu detail and very highly coloured. It appears to be well carried out for the kind of thing. No. 1,901 shows one of the Indian rooms in the same hotel with yellow marble (?) columns with blue capitals and red pedestals supporting a highly-decorated ceiling. Why all this outbreak of Indian interiors in a new hotel on this site? Is it to catch possible or probable Rajahs visiting London?

1,900. "Case of the Grand Organ, Town Hall, Sydney;" Mr. Arthur G. Hill. We cannot say this suggests anything new (so sadly wanted!) in the artistic treatment of the organ-case. It is only the old device of larger and smaller "towers" of pipes. The main bulk of the instrument stands under a great elliptic arch, which springs from an architrave carried on two columns at the sides; between the columns are smaller sections of the organ forming their own design. Probably no great expenditure was allowed on the case, to judge from the design, but it is a pity that something more should not have been done, financially and artistically, on such an opportunity.

1,902. "All Saints', Compton Leek; painted decorations in Chancel;" Mr. Gerald C. Horsley. The nearer portion of the chancel wall is occupied by a Gothic-looking diaper ornament arranged on net-work lines; beyond this, on the eastern part of the wall, is a decoration in gold and green of which the effect only is seen; the design is hardly made out, nor does there seem any sufficient reason why the wall design should alter just where it does. Above the wall diaper is painted a conventional tree-trunk which branches out over the whole upper part of the wall, and among the foliage of which are open books displaying texts; near the trunk two angels stand under the foliage; the whole being treated in a quite flat and decorative manner. The roof timbers are painted in a manner based on Mediæval examples. The remainder of the decoration is original in design, and the colour effect of the drawing has a decided character of its own.

1,903. "Archaic Ionic Capitals, Acropolis, Athens;" Mr. R. W. Schultz. These are admirably-executed water-colour drawings, of rather fragmentary Ionic capitals; the author has conveyed very truthfully the colour of the partially stained marble, and the remains of coloured decoration on it. Two of these capitals appear to have the volutes flat on the face, the spirals merely painted without being modelled; one of them with an inlet piece of red marble as a central boss, standing above the main surface.

1,904. "East Window, St. Mary's Church, Leigh, Lancashire;" Messrs. Shrigley & Hunt. A large Gothic window with small figures and ornaments in the upper panels and larger figures beneath tabernacle work in the large panels below. The colour is delicate and harmonious, and the whole effect very good in a decorative sense, and the coloured drawing well executed.

1,905. "Design for a New Church, Heap Bridge;" Messrs. Preston & Vaughan. This is a very artistically-executed pen drawing, showing a pretty rustic-looking country church, with low walls and high roofs. Over the crossing the roof is raised, but in a saddleback form parallel to the lines of the nave roof, with a quaint but not unpleasing effect for the kind of church.

Near this is a view of some projected new mansions which we do not notice more particularly or by name, as we only mention it here to point a fresh moral as to the way in which the Architectural Room is managed. The drawing referred to was offered to us for publication in the *Builder*, and declined at once, as a drawing which, whether in regard to style or execution, it could be no credit to us to publish. Yet here is this drawing (a large one too) occupying space on the walls of the Royal Academy of Arts, which surely, one would think, should keep at least as high a standard as can be maintained in a weekly journal. There are one or two other drawings in the room which we had previously declined to publish, but none as bad as the one referred to; and on the other hand we know of the refusal of important drawings by architects who *must* have sent better things than this. Does any competent person look after the architectural hanging at all? Or is it left to the porters, and governed by the consideration of the size of the frames?

MASTER MASONS' ASSOCIATION OF GLASGOW.—The members of this Association had their annual excursion on the 9th inst., starting from Glasgow per rail to Lochearnhead, thence per coach to St. Fillans and Comrie, where the party dined at the "Royal" Hotel, and thence drove to Crieff, and took rail to Glasgow. Deputations were present from the Glasgow Architects' Association and Glasgow Measurers' Association, and also two from each of the Edinburgh Master Builders' Association and the Dundee Master Builders' Association.

CONGRESS OF FRENCH ARCHITECTS.

THE nineteenth Congress was opened in the Hemicycle des Beaux-Arts at half-past two on Monday. On the platform were M. Chas. Garnier, President of the "Société Centrale des Architectes Français;" MM. E. de Joly and Achille Hermant, Vice-Presidents; MM. Daumet and Alfred Normand, "censeurs;" MM. Roux and Boileau, secretaries. Among those present in the hall were M. Heret, archiviste, M. Bartaumieux, treasurer, MM. Hardy, Paul Sedille and other members of the Council, M. de Geymüller, M. Eugène Müntz, &c. &c.

In a short opening address M. Chas. Garnier congratulated those present on the recurrence of this occasion for the meeting of the French architects of Paris and the Departments, to live for a week together united in the same ends, which must tend to draw closer the bond of union already existing between the members of the Central and Departmental Societies. After having expressed his regret, which all would share, at not seeing among them the respected President of the Association Provinciale des Architectes, M. Journoud, M. Garnier, following the traditions of the Congress, called to the bureau several Architects of Departments, viz., MM., Marteau and Vandenbergh, of Lille; M. Lecocq, of Dunkerque; and M. Billa, of Nice.

According to the order of the day there followed a somewhat humorous paper by M. Frantz Jourdain on "The Erection of Museums of Architecture." M. Jourdain spoke of the kind of contempt into which works of architecture had fallen, especially those of a purely ideal class, designs not executed, and which in this case brought neither honour nor profit to their authors. He wished that the State should purchase, from the annual Salons, these conceptions of architects, the restorations of ancient buildings and other ideal designs, as they bought pictures, sculpture, and impressions of engravings. It was not sufficient that this should be done occasionally under the rule of an exceptionally enlightened Minister of Fine Arts; it must be made a recognised practice. Ministries changed, as they all knew, and he wanted to see an established precedent for architectural designs to have the chance of bearing, like pictures and statues, the placard "Acheté par l'État," and a decree sanctioning this expenditure as part of the Fine Art budget. Following on this, there should be in Paris and in the Departments galleries established for the exhibition of such works. He had been told recently that architecture had its place in the Louvre, as other works of the industry and talent of man had their place in other special galleries, and that there should some day be a little corridor, leading to the Musée de Marine, in which architectural drawings could be hung. But, he said, we must have something better than that, a more honourable situation for our works; and in the creation of special galleries of architecture we should be able to obtain a considerable representation of architectural design in the provinces as well as in Paris, which would be an excellent step towards the decentralisation of architecture.

M. Roux said that the question was one to be seriously considered, and he believed that the Conseil Supérieur des Beaux-Arts had received a proposition from M. Tetrau, Councillor of State, and that M. Gonse would shortly make a report on it.

M. Chas. Garnier next laid on the table the last circular of M. Yves Guyot, Minister of Public Works*, giving instructions to all officers of the department to be especially careful of megolithic or other ancient remains, as well as later buildings, which they might come across in the process of their work, whether the same were or were not classed by the Commission des Monuments Historiques.

M. Chas. Lucas asked that in the proposed museums of architecture an honourable place should be given to models of buildings, reminding the meeting that the custom of modelling architecture had existed in all previous epochs of art, and mentioning, in recent times, the models executed under the direction of MM. Hittorf, Davioud, Ch. Garnier, and Bouvard.

MM. Garnier and Vandenbergh asking if M. Jourdain had any resolution to propose, he proposed the following:—

"That the Congress of French architects considers that architecture should in future be put on the same level with painting, sculpture, and engraving, and that, as a consequence, drawings and models of architecture should be given an honourable position in the Museums of Paris and of the Departments."

The resolution was unanimously adopted.

M. Rozet, President of the Committee of "Economie Sociale" of the Société Centrale, was announced to read a paper "De l'Architecture et des Conseils d'Arbitrage," but he being prevented from attending by a very recent domestic bereavement, M. Poupinel, Secretary of the Committee, supplied his place by a paper on "Le Rôle de l'Architecture Vis-à-vis du Personnel du Bâtiment;" and, taking into account the lecture given at Bourges in October 1889, by M. Lucas, since the first formation of the Departmental Association, he put forward, as subjects deserving of the attention of architects (1) the theoretic and practical instruction of the building workman; (2) the hours of labour; (3) the safety of the workman; (4) assurance against accidents; (5) the "caisse des secours et retraites;" (6) rewards and encouragements to workmen; (7) the question of wages and of participation in profits; (8) the association of workmen and employers; (9) arbitration in case of strikes; (10) custom-house tariffs and commercial treaties. He appealed to the provincial architects to take up, either singly or in combination, the study of these questions, which were unanimously voted to form part of the order of proceedings of next year's Congress.

M. David de Penanrun then read a paper urging that architects should use all their influence for the re-establishment of the custom of cessation from work on Sunday, and quoted in regard to this question a number of documents taken from the reports of the "Association pour le Repos du Dimanche."

M. Boileau asked, if there was any case for bringing forward a resolution, that M. Garnier would oppose any immediate vote, in order that the subject might be more completely considered the year following.

M. Lucas, supporting that proposition, asked for the substitution of the word "hebdomadaire" for the word "dominical," an amendment which was accepted by M. David de Penanrun; and proposed that an inquiry on the subject, over the whole of France, should be undertaken.

MM. Joly, Ch. Garnier, and Vandenbergh thought that the question had not been sufficiently studied, and M. Vandenbergh objected to any fixed rule enforcing rest; he wanted more liberty.

M. Boileau observed that they were only asking for the study of the question, but M. Ch. Garnier said that it more particularly concerned the contractors and the workmen. MM. Normand, Boileau and Garnier having exchanged some further observations on the topic, a member proposed that along with obligatory rest on Sunday they should also pass a rule for obligatory work on Monday; and, after some hesitation, a vote was taken, and a majority of twenty-nine against twenty-two voted that the subject of Sunday rest was deserving of special attention, and the resolution was drawn up by M. Hermant in these terms:—

"That the provincial architectural societies should make a formal inquiry on this question and should send the result to Paris to be discussed at the next year's Congress."

After some formal business, the meeting broke up at a quarter past four.*

FLUSHING AND TESTING HOUSE-DRAINS.—Mr. W. Reynor sends us drawings and description of an apparatus for testing house-drains, the principle of which is that the lower end of the house-drain is plugged by a counterpoised valve where it enters the intercepting trap; and letting bath-waste or other water flow till a ball and lever in a back chamber behind the intercepting trap is raised to a certain height, then observe if the ball index descends at all; if not, the drains are right. The flush is got by then removing the valve-plug, when the water fills the front compartment or real intercepting-chamber to a certain height before the outflow of the drain checks it rising, and thus ensures a full-bore flush. We should rather question the effectiveness of this action for flushing; at all events there are better ways of getting a full-bore flush than that. The test contrivance has the merit of being easy of application, and such as can be used constantly; but it is not a sufficiently efficient test for the air-tight quality of drains. Sufficient air may escape to be dangerous, through an outlet which would be a long time in showing itself by water-escape, and would need a longer study of the index than people are likely to give it.

* This has already been referred to in our columns.

* We will continue and complete the report of the Congress next week.

THE ARCHITECTURAL ASSOCIATION VACATION VISITS:

ROCHESTER.

THE first of the vacation visits this year was made to Rochester, on Saturday last, under the guidance of Mr. Edmund Woodthorpe. The party arrived at Rochester Bridge about 3 o'clock, and proceeded at once to examine the Castle, not forgetting to notice the fine situation and appearance of this grand old keep, which, in spite of its modern surroundings, can still hold its own as the dominating feature of the city as seen from the opposite bank of the Medway. Before entering the gardens which have been formed in the space originally occupied by the "ballium," some of the older portions of the wall overlooking the river were inspected, and the members then entered the keep, which was examined from base to summit, and its several interesting features noted. The plan is a square divided by a thick wall, which has only small openings of communication on the lower floors. In the middle of this central wall the well is placed, with a shaft above it the height of the building, and openings on each floor for the greater convenience of the inmates. There are turrets at the four corners, and in two of them are staircases. The construction of these winding stairs was pointed out. They are entirely of rubble, without any continuous central newel, and the steps are not of stones sufficiently long to reach from the wall to the centre, but are made up of small and very rough pieces with a large proportion of mortar. The arches, which formed a means of communication on the principal floor, are ornamented with the "zig-zag" moulding, and the piers have the fluted cushion capitals so often seen in Norman work. From the summit a good view was obtained of the cathedral, immediately to the east, with the hills behind crowned with the forts for the protection of Chatham Dockyard, the red brick buildings of which form a noticeable feature on the river below.

On leaving the castle, a short walk across the site of the old monastic vineyard brought the party into the eastern end of the High-street, and after noticing Jacobean remains in some half-timbered houses, a visit was made to Eastgate House. There is here a good staircase, several carved overmantels, and low-relief carving on some of the beams bearing the date 1591; also some good ceilings. These latter have been so frequently whitewashed that anyone might be excused for taking them for plaster, although it was stated that some of them were found to be of oak.

The next attraction was "Restoration" House, so called from the fact that Charles II. slept here the night previous to his reception by the Lord Mayor of London on Blackheath, where the re-establishment of the Monarchy was formally acknowledged and proclaimed. The present owner of the house (Mr. S. Aveling) welcomed the members, and showed them over the building himself. An enthusiastic lover of the art of the period comprised by the terms Elizabethan and Jacobean, Mr. Aveling makes his own house his especial study, and he is constantly engaged in rendering it a storehouse of the art of the period named, yet without in any way detracting from its charm as a residence. The original oak panelling remains in most of the rooms, and in several there are good mantels. Several of the old windows, after having been blocked up when the window-tax was in force, have been re-discovered and opened, and in some of them the old glass was found and retained. The grand staircase is worthy of study; the walls are hung with tapestry, presented by the king in return for the hospitality accorded him here. There are several interesting specimens of furniture in the house. Mr. Aveling drew attention to a chest in the king's bedroom which was provided with a long drawer at the bottom, and then pointed out others in which the idea had been improved upon, which he considered may be an explanation of the term "a chest of drawers." In one of the rooms in the roof there is quite a collection of carved woodwork, from various parts of the house, most of which was almost hidden under successive coats of paint; these have since been carefully removed and the original sharpness of the carving restored. On leaving, the attention of the visitors was drawn to the front door, the workmanship of which shows that the art of "mitreing" the mouldings surrounding the panels was well understood by its maker, although in the smaller panelling throughout the house this seems to have been generally shirked, the small mouldings tapering off towards the angles to avoid facing the difficulty. It should be added that the door is of oak, of a very respectable thickness, and the hinges of wrought-iron do not appear too light for their work, although that means the proper support of a door which weighs about 18 cwt.

At half-past five the Cathedral was reached, and the party found Minor Canon Livett a capital guide. After inspecting the work in connexion with the restoration of the west front, now in progress by Mr. Pearson, R.A., a visit was made to Gundulph's Tower, on the north side. This now forms no part of the church; the walls remain to the height of about 30 ft., but the roof has long since vanished. Attention was called to the constant use of tufa as a building material by the early Norman builders, and samples of this stone were pointed out. It is not known where this was obtained from, although it seems probable that it was brought from abroad. On entering the Norman nave, a diagram was exhibited, showing the result of excavations below portions of the west end of the Cathedral, during which the foundations of the apse of the Saxon Church were discovered. A specimen of Gundulph's masonry resembling that in the tower attributed to him at Malling, was then noticed. Under the central tower the peculiarity of the construction was noticed, the fact that the smaller shafts have their bases at such an unusual height being probably explained by the fact that in early times a stone screen extended across the western arch of the tower, similar to the remaining one across the eastern arch, in which is the present entrance to the choir. The nave, thus cut off from the monks' church, was used for parochial services by the secular clergy. After continual disputes the monastery permitted a separate church to be built to the north of their cathedral. Entering the choir, the side walls of which are carried up solid from the back of the stalls, the remains of the early benches were noticed, and also the restored colour decoration, which has been copied from portions which are still preserved. The pattern is a diaper formed by red quatrefoils with the heraldic "lion of England," interspersed with concave diamonds of dark blue, with the golden "fleur de lis," no doubt in allusion to the ancient armorial bearings of the English sovereigns who quartered England and France on their shields.

As the trains for returning to town were somewhat inconvenient as to time, the remainder of the cathedral could not be very minutely examined. The eastern transepts, with the rich chapter-house doorway, and some tombs with good original colour decoration, were noticed. A brief visit was then made to the crypt, which extends under the eastern portion of the church. A few of the party, who were not obliged to leave by the earlier train, were able to inspect the remains of Bishop Ernulph's work in the ruins of the Norman chapter-house, and then bade farewell to their guide.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS:

ELECTION OF STANDING COMMITTEES AND NEW MEMBERS.

FOR the reason stated by us last week, we were unable to give the results of the election of Standing Committees for the year 1891-92, which were announced at the meeting of the Institute on the 8th inst. We now give them, together with the names of new members:—

The President having opened the four reports of the scrutineers (Messrs. F. R. Farrow, J. S. Hansom, H. W. Pratt, J. S. Quilter, Lacy W. Ridge, and F. Todd, Fellows, and Banister Fletcher, jun., and H. T. Hare, Associates) appointed to direct the election of the Standing Committees, the following announcements were made by him:—

Art Standing Committee.—Fellows (10):—The following candidates are elected: John M. Brydon, 393; R. Herbert Carpenter, F.S.A., 386; John Belcher, 375; Edward J. May, 362; James Neale, F.S.A., 352; Mervyn E. Macartney, B.A., 346; Ernest Newton, 346; W. D. Caröe, M.A., 311; H. L. Florence, 275; and C. Forster Hayward, F.S.A., 253. Associates (6):—The following candidates are elected: E. Ingress Bell, 404; Gerald C. Horsley, 370; Alfred Aitchison, 342; Beresford Pite, 329; Arthur Cawston, 255; and B. Binyon (Ipswich), 235.

Literature Standing Committee.—Fellows (10):—The following candidates are elected: Professor Aitchison, A.R.A., 396; Alexander Graham, F.S.A., 360; John Slater, B.A., 349; J. Alfred Gotch, F.S.A., 333; R. Phené Spiers, F.S.A., 333; David Brandon, F.S.A., 330; Frank T. Baggallay, 316; Charles L. Eastlake, 297; E. P. Loftus Brock, F.S.A., 278; and Mervyn E. Macartney, B.A., 234. Associates (6):—The following candidates are elected: Paul Waterhouse, M.A. Oxon., 397; Arthur Edmund Street, M.A. Oxon., 381; H. O. Cresswell, 341; F. T. Dollman, 318; Thomas Garratt, 313; and R. Elsey Smith, 283.

Practice Standing Committee.—Fellows (10):—The following candidates are elected: Cole A. Adams, 354; Edwin T. Hall, 343; S. Flint Clarkson, 335; Lacy W. Ridge, 319; Joseph S. Hansom, 302; J. Douglass Mathews, 295; G. E. Grayson (Liverpool), 287; H. C. Boyes, 279; G. R. Crickmay, 236; and Stephen Salter, 236. Associates (6):—The following candidates are elected: Thomas M. Rickman, F.S.A., 387; Edmund Woodthorpe, 366; Thomas Batterbury, 324; F. H. A. Hardcastle, 319; W. Hilton Nash, 250; and R. S. Wilkinson, 248.

Science Standing Committee.—Fellows (10):—The following candidates are elected: E. J. Tarver, F.S.A., 372*; Lewis Angell, 353; Thomas W. Cutler, 350; T. H. Watson, 336; J. Douglass Mathews, 327; H. Tanner, 324; Ralph Nevill, F.S.A., 315; Henry Dawson, 309; H. D. Searles-Wood, 307; and B. Tabberer, 302. Associates (6):—The following candidates are elected: Frank S. Granger, M.A., 372; H. A. K. Gribble, 337; William C. Street, 327; Henry Lovegrove, 317; Francis Hooper, 315; and Charles Henman, 307.

Ballot for New Members.—The following candidates were balloted for and declared to be duly elected:—As Fellows (22):—Messrs. John Horbury Hunt (Sydney); Edward John Dodgshun (Leeds); Walter Higginbottom (Manchester); John Donkin (Bournemouth); Francis James Smith; George Halford Fellowes Prynne (*Associate*); Arthur Edmund Street, M.A. (*Associate*); John Edward Knight Cutts (*Associate*); William Charles Street (*Associate*); Frank John Brewer; Charles George Hood Kinnear (Edinburgh); Edward Monson, jun. (*Associate*); Otho Bathurst Peter (*Associate*, Launceston); Latham Augustus Withall; William Frederick Unsworth (*Associate*); Alfred Bovill (*Associate*); Albert Edwin Sawday (*Associate*, Leicester); John William Stanley Burmester; Robert Page; Walter Graves (*Associate*); Thomas Cooke Nicholson (Newcastle-upon-Tyne); and Bernard Smith.

In accordance with clauses (*b*) and (*c*) of By-law 9, the following candidates, who have passed the Examination, were elected by show of hands:—As Associates (19): Messrs. Robert Smith Dods (Brisbane); Edward Carrington Hanson; John Walter Little (Clare, Suffolk); John Begg; Joseph William Twist (South Shields); Henry Jenner Griggs; Stewart Henbest Capper, M.A. (Edinburgh); Edward Howley Sim; Allan John Meacher; George Sydney Jones (Sydney); John Hutchings; John Rawlinson; Thomas Rogers Kitsell (Bury, Lancs.); Walter Thomas Cressall; William Church Howgate; William Lionel Eves; Andrew Noble Prentice; William Fraser; and John Albert Gill Knight.

His Highness the Maharajah of Jeypore, G.C.S.I. (Rajputana), was also elected an Honorary Fellow; and Dr. William Dörpfeld (Athens) and His Excellency Osman Hamdy Bey (Constantinople) were elected Honorary Corresponding Members.

RESTORATION OF WEST BUCKLAND CHURCH, SOMERSET.—The re-opening of West Buckland parish church, after restoration, took place on the 12th inst. The church has been re-seated with pitch-pine benches, the aisles have been laid with encaustic tiles, a new stone pulpit has been constructed, the old western gallery has been removed and the west arch and west window thereby opened up, and the windows have been re-glazed. The interior walls have been re-plastered in stucco, a new vestry has been provided, and the exterior stonework has been restored. The work has been carried out by Mr. H. J. Spiller, of Taunton, and the heating apparatus and the ventilators have been supplied by Messrs. Bishop Brothers, of Wellington, the architect for the work being Mr. E. T. Howard, of Wellington.

* Mr. Tarver's death was, by a sad coincidence, announced at the same meeting.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of this Council was held on Tuesday afternoon at Spring-gardens, the Chairman, Sir John Lubbock, presiding.

Death of Mr. James Beal.—The Chairman and other members made feeling reference to the death of Councillor James Beal, who was regarded as "the father of London municipal reform," and who has made himself particularly prominent on the Council as a champion of the public against the water companies. The Council passed a vote of condolence with Mr. Beal's family.

Low Tenders.—The General Purposes Committee reported as follows on this subject:—

"The Council, on April 28,* referred it to us to consider and report on the policy of accepting tenders when it is apparent that the contractor can only carry out the work in an honest and substantial manner at a great loss; whether such a policy is contrary to fair and honest trading, and whether it tends to promote sweating, scamping, and the use of inferior materials. With the spirit of this resolution we entirely concur, and the only question is, supposing the Council to be in similar accord, what is the best practical course to take? The varying circumstances under which tenders are made and accepted seem to us to render any fixed rule impracticable. The Committees which receive tenders, and which have before them the whole of the circumstances, are the best judges of what is the right course, and as the Council, when advertising for tenders, expressly declares that it does not bind itself to accept the lowest or any tender, there is nothing to fetter the discretion of a Committee in dealing with all tenders according to their merits. We recommend—

'That the Council do concur in this view.'"

Brooke's Market Area, Holborn.—The Housing of the Working Classes Committee brought up the following report:—

"The attention of your Committee has been directed to an insanitary area known as Brooke's-market, Holborn. An official representation relating to this locality was made to the Metropolitan Board in 1883, but the Board took no action with regard to it, on the ground that it was too small for the application of Cross's Act. The area comprises fourteen houses and four sheds, and the houses are old and in bad repair, with insufficient yard space at the rear. Many of them have lately been closed, and the persons who would now be displaced by a clearance are only about sixty in number. Your Committee have communicated with the Holborn District Board on this subject, in the hope that the Board would see their way to initiate a scheme for reconstruction, but, although they have given the matter their consideration, no conclusion has been come to, and meanwhile the opportunity for dealing with the area promptly is (having regard to the period of the session) likely to be lost, and before another year has passed the area may have been rebuilt upon. The area is about a quarter of an acre in extent, and lies centrally between Leather-lane and Gray's Inn-road. It is the centre of a teeming population, and there are many parish and other schools in the immediate vicinity, one of which actually abuts on the area, which helps to render it most desirable that rebuilding on the area should be restricted as far as possible. The extraordinarily dilapidated condition of the dwellings, many being mere shanties, which occupy the site, and the fact that several have been closed, affords an exceptional opportunity for dealing with the area in such a way as, while rehousing the persons actually displaced, to provide for the remainder being left as open space. The scheme which your Committee propose is framed with this object in view. The plan shows accommodation for sixty-four persons in buildings four stories high, constructed at one side of the area, the rest of the area remaining open. As an alternative, the two projections on the south side of the main buildings may be carried only three stories high, leaving two single-room tenements on the top story, and reducing the accommodation from sixty-four to sixty persons. In either case the building regulations of the Council are observed. The Valuer estimates the net cost of the scheme, exclusive of paving works and the cost of laying out the open space, at 4,750*l.*; the gross cost being estimated at 5,500*l.* and the recoupment at 750*l.* A contribution towards the cost will, of course, be looked for from the District Board. Your Committee recommend:—

'That, subject to an estimate being submitted by the Finance Committee in accordance with the statute, the Council do pass a resolution under section 39 (1) *b* of the Housing of the Working Classes Act, 1890, in respect of the Brooke's-market, Holborn area, and do order its seal to be affixed thereto; and do direct a scheme, under Part II. of the Act, to be prepared for the improvement of the area; and that your Committee be authorised to prepare a scheme accordingly.'

Resolution which the Council is asked to pass under this recommendation:—

'Resolved,—That it appears to the Council that the closeness, narrowness, bad arrangement, and bad condition of the buildings situate upon the area known as Brooke's-market, in the parish of St. Andrew, Holborn, in the Administrative County of London, delineated and coloured red on the plan annexed to this resolution, and the want of light, air, ventilation, and proper convenience, and other sanitary defects in the said buildings and premises, are dangerous or prejudicial to the health of the inhabitants of the said buildings, and of the neighbouring buildings, and that the demolition, reconstruction, and re-arrangement of the said buildings is necessary to remedy the said evils, and that the area comprising those buildings and premises, and the yards, outhouses, and appurtenances thereof, and the site thereof is too small to be dealt with as an unhealthy area under Part I. of the Housing of the Working Classes Act, 1890, and the Council doth by this resolution direct a scheme to be prepared under Part II. of the said Act for the improvement of the said area.'"

See *Builder* for May 2, p. 355.

This recommendation led to a long discussion. The proposal of the Housing Committee was strongly condemned by Mr. Hutton, who moved, as an amendment,

"That in the opinion of the Council, it is not desirable to deal with the area in Brooke's-market, Holborn, until further experience has been obtained as to the operation of the Act in relation to the Boundary-street scheme."

Mr. Hutton criticised the scheme as extravagant and ill-considered, and urged that instead of taking up such schemes for the benefit of the slum-owners, the Council ought to take steps to bring the slum-owners before the magistrates and compel them to put their property into sanitary condition.—Mr. Saunders, in seconding the amendment, said that by taking the steps recommended to them by the Housing Committee they would be putting a premium upon the manufacture of slums, and would be making their manufacture a very profitable business to the slum-owners.—Mr. A. Hoare, as a representative of the district, supported the recommendation of the Committee. He contended that the improvement was one which had been long needed, and he denied that anything more than the bare value of the land would be paid, or that the owners of the slum in question would fare better at the hands of the Council than by selling the property in the open market.—On the other hand, Colonel Edis opposed the recommendation of the Committee, and said he did not agree with the Council's valuation of this property, nor with that of the Boundary-street scheme. If they had gone the right way to work, they might have acquired the properties for about half the sum they were proposing to give.—After some further discussion, Mr. Hutton's amendment was carried, on a division, by 45 votes for to 37 against. On this being put as a substantive motion,

Mr. Roberts moved another amendment, to the effect that the report be referred back to the Committee, with a view to ascertain what proportion of the cost the local authority would be willing to bear. Mr. Roberts said that it would be lamentable if the important work of the Housing Committee were to be practically suspended by the passing of such resolutions as Mr. Hutton had succeeded in carrying.—Dr. Longstaffe seconded this amendment, and said that the question involved was neither a slum-owners' nor a working-men's question, as had been said by various speakers, but a question affecting the health of the whole community of London. There were numerous places of this sort which must be got rid of at all cost in the interests of the people of London as a whole. The Artisans' Dwellings Acts were not very appropriately named; they were not merely Acts for housing artisans; they were in a still larger degree Nuisance Removal Acts, which necessarily, unfortunately, entailed operations on a large scale. It was their duty not to shrink from their duty as administrators of those Acts, costly though the work might prove to be.—Mr. Maule said that, as another representative of the district concerned, he felt it right to say that he disagreed with his colleague, Mr. A. Hoare, and that he opposed the scheme of the Committee. There was no need for more artisans' dwellings in the neighbourhood, which was, in fact, over-done with such dwellings.—After some further discussion, Mr. Roberts's amendment was agreed to, on a show of hands, by 34 votes for to 29 against.

The report was therefore referred back, as was also another report from the same Committee referring to the Green-Bank area, Southwark.

Proposed New Theatre in Cockspur-street.—The Report of the Theatres and Music Halls Committee contained the following paragraph:—

"Your Committee on July 23 last considered certain plans for the erection of a theatre on a portion of the site of Waterloo house, No. 2, Cockspur-street, and Nos. 16 and 17, Pall-mall East, which had been sent in by Mr. Emden, architect, acting for Messrs. Hollingstone and Pearce. As the drawings, eleven in number, were deemed unsatisfactory and such as should not be approved, the Committee reported in that sense to the Council on July 29, and their recommendation was adopted.

Amended plans were submitted by Mr. Emden on January 26, 1891, and your Committee considered them, in conjunction with the Superintending Architect's report, on February 11. There appeared, however, to be considerable objections to the site, but before coming to a decision, they asked for a complete block plan of the whole of the buildings immediately surrounding the proposed theatre. This plan was furnished and considered by your Committee on February 25, but as several objections appeared on the face of them, the Superintending Architect was directed to confer with Mr. Emden upon the points at issue. On March 11 the plans were again considered, and your Committee gave instructions that the attention of Mr. Emden should be drawn to the unsatisfactory nature of the proposed exits. The subject was again before the Committee on March 25, April 15 and 29, and June 3 and 10, as various objections to the proposed plans still presented themselves.

The Superintending Architect was, at the wish of the Committee, in constant communication with Mr. Emden, but it was not until June 10 that he was able to report to your Committee that the drawings complied with the requirements of the Council in regard to the construction of theatres.

The Committee have thus given the most careful and earnest consideration to this application, and although they are by no means satisfied that the site is such a one as should meet with approval, they have some hesitation in recommending the rejection of the plans on that ground alone, having regard to the general conditions of the sites upon which it has been the practice to erect theatres in London, and therefore, after carefully weighing all the circumstances of the case, they recommend—

'That the drawings, dated January 26, 1891, as amended by further drawings dated April 11 and June 9, 1891, be approved, and that Mr. Emden be so informed.'"

The consideration of this recommendation was postponed.

After transacting other business, the Council adjourned.

COMPETITIONS.

HORNSEY-ROAD BATHS.—We hear that in this competition Mr. A. Hessell Tiltman, of London, has been awarded by the arbitrator (Mr. Chas. Barry) first and second premiums, and that Mr. Tiltman has been duly appointed architect to the work. The baths are to be built for the Commissioners of Baths and Washhouses for the Parish of St. Mary, Islington.

NEW MARKETS, HALIFAX.—Messrs. Leeming & Leeming write (see p. 468 *ante*):—"An error occurs in your description of last week. In naming the limit of cost as 40,000*l.* you infer that our estimate is much less (34,000*l.* odd), the fact being that the estimate named is for the portion of work *first* to be carried out, the total estimate reading 40,000*l.*"

NEW PUBLIC PARK AT CHESTERFIELD.—We are informed that Messrs. William Barron & Son, landscape gardeners, of Borrowash, have been awarded the first premium for their designs for laying out Queen's Park, Chesterfield. The park is 22½ acres in extent, and was purchased by public subscription to commemorate the Queen's Jubilee. An ornamental lake, cricket and football ground, bicycle track, bowling green, gymnasiums, &c., are provided in Messrs. Barron's scheme.

QUEENSLAND INSTITUTE OF ARCHITECTS.—The first competition amongst architectural students, conducted by the Queensland Institute of Architects, has terminated very satisfactorily, and evinces an amount of talent in our architectural pupils that the members of the Institute were scarcely prepared for. The designs called were for museum and art gallery, for which premiums offered by the Institute are—First design, gold medal, value 10*l.*, and the President's prize of books to value of 5*l.* 5s.; second premium, 5*l.* 5s. The awards made are—First place motto, "Au Hasard," H. A. Crouch, articled to Mr. Buckeridge; second, "Carbine," G. G. Hutton, in the office of Messrs. Oakden, Addison, & Kemp. A special prize of the Institute's silver medal, value 5*l.* 5s., is awarded to "Bibliothèque." E. J. Clarke, in the office of Mr. J. J. Clarke, for merits in plans and excellency of drawings. Competitive designs were also invited from younger students for a terrace of five houses. The prizes awarded for these are—First, "Lux Mundi," J. Barr (Oakden, Addison, & Kemp), prize value 5*l.* 5s.; second, to "Rex," T. F. M. Stanley (F. D. G. Stanley), 3*l.* 3s.—*Brisbane Courier* (April 28).

Illustrations.

SHEFFIELD MUNICIPAL BUILDINGS: PRINCIPAL ENTRANCE.

THIS drawing, which is now in the Architectural Room at the Royal Academy, shows the detail of the main entrance to the new Municipal Buildings at Sheffield, by Mr. E. W. Mountford. A somewhat important alteration has been made in the design at this point, since the general drawing was made; a single large arch over the doorway has replaced the two arches which were in the original design. The change is certainly an improvement.

PROPOSED BELL-TOWER, ST. MICHAEL'S CHURCH, COVENTRY.

THE proposed tower is in the early Perpendicular style, and at the ground level measures 36 ft. across the walls, and 50 ft. over the buttresses; each angle has two buttresses, which have their inner angles strengthened by octagonal faces, which are a continuation of the faces of the turrets which crown the tower. There are also central buttresses on each face, so that the tower has twelve buttresses in all.

The tower would be placed parallel with the avenue, so that the archway would be at right angles to it.

The lower stage of the tower, up the first string-course, a height of 56 ft., would be almost quite plain, excepting for the base-course, which is 6 ft. high, and of three moulded tiers, the upper one of which is enriched with a continuous panelling.

Two single-light windows on the north-east and west faces light the lower chambers, the walls at this point being 7 ft. thick.

Above this chamber is the new vestry, 22 ft. square internally, and lighted by two-light windows on its east and west sides, direct access being obtained to this room by means of a turret staircase provided on the west side of the cloister, which latter connects the tower directly with the Girdler's Chapel. This cloister is groined in three bays, and is 16 ft. wide; a flight of steps would lead from its level to the level of the church floor, as occurs in other entrances of the church, one-half of the steps being in the cloister, and the other half in the Girdler's Chapel.

No ancient feature of the Church of St. Michael would be disturbed by the erection of the cloister.

The main staircase to the tower, for ringers, &c., is in its south-east angle. The next stage of the tower provides the ringers' room, 22 ft. square and 21 ft. 6 in. from string-course to string-course, with chamber for the clock-machinery immediately above it. The external face of the tower at this point has a little more ornamentation, so as to lead up to the greater richness of the belfry-stage, the four principal Archangels being sculptured in panels on the east and west faces, the north and south sides having double windows for lighting the ringing-room.

The chamber for the bells follows next, 22 ft. square internally, and 37 ft. 9 in. in height from string-course to string-course, with walls 6 ft. 6 in. thick, the windows being in two thicknesses, detached from each other, so as to afford deep recesses, which are enriched by detached tracery at their head, and by a pierced parapet at their sill-level. The next arcaded stage, 14 ft. high, which is also in two thicknesses, is intended to receive the clock-dials, which latter would be of the skeleton type and gilded, being at their centre at a height of 122 ft. from the ground. The tower is finished with a rich traceried parapet, 8 ft. 9 in. high, and having four pinnacles, 30 ft. 6 in. high. The total height from ground to top of parapet is 138 ft., and from ground to top of pinnacles 168 ft. 6 in.

It is proposed that the sculptured figures which have been introduced in the octagonal faces of belfry and clock stages as a feature in common with the present tower of St. Michael's Church, might represent the several orders of angels, and the Latin inscription to be carved on the cornice from Psalm ciii., 20, continues the idea.

> Benedicite Domino omnes angeli ejus.
> Potentes virtute facientes verbum illum,
> Benedicite Domino omnes virtute ejus.
> Ministri ejus qui facilis voluntatem ejus.

One line of the text being placed on each side of the tower.

The central spirelet is intended to be quite unobtrusive, and may be described as being simply a base or strengthening of the vane rod; it would be covered with lead, with leaden crockets at its angles.

The design is by Messrs. Paley & Austin, of Lancaster.

LONDON COUNTY COUNCIL MUNICIPAL LODGING HOUSE.

WE give this week illustrations of the selected plans for the new Lodging House for men, by Messrs. Gibson & Russel, about to be erected by the London County Council on the site recently purchased and cleared in the neighbourhood of Drury-lane. The following extract from the architects' report sufficiently explains the plans:—

"In our design the dormitories govern the general disposition of the building, for we consider that in buildings of this class they are of primary importance, seeing that they are the parts which the inmates use during the longest periods; therefore thorough ventilation with a constant supply of fresh air to each sleeper is essential.

We presume that it is open to us to set forth concisely the merits of our scheme, and to compare it with similar buildings already erected. It is beside the question to discuss the ordinary East-end lodging-house or the existing Salvation Army shelters, which, from our personal knowledge, would certainly not serve as models. We turn, therefore, to the type from which those at Glasgow have been erected, as being the most recent buildings of this class.

The dormitories in these are arranged on the old infirmary system, and are filled with cubicles in such a way as to destroy all natural ventilation. The current passing over the top of each cubicle is supposed, by suction, to change the air therein, but in reality each compartment is a well-hole filled with foul air. This evil is further aggravated through placing one sleeper over another, by which the unfortunate occupant of the lower berth, beside being cramped in all his movements, is in an atmosphere which is practically unchanged during the night.

In our design—two halls, each 70 ft. by 32 ft., with three tiers of galleries, ranging round a central well, form the dormitories, giving 435 cubic feet of air space to each sleeper.

In these galleries, and adjoining the external walls, are placed cubicles, each measuring 6 ft. 6 in. by 4 ft. by 7 ft. 7 in. high. Every cubicle has a double-hung sash window, 4 ft. 9 in. by 1 ft. 9 in. These windows are arranged in pairs, with a fresh-air inlet in the breast of each at the floor-level, which supplies a current that flows over a low-pressure hot-water pipe, encased in a box at the back of each mullion. This current (warmed in cold weather) is admitted into each cubicle at a height of about 4 ft. 6 in. through a perforated hinged flap, ensuring a constant supply, which the occupant can increase at pleasure.

The divisions between the cubicles are carried up to the ceilings, while the ends next the galleries are 5 ft. 6 in. high, leaving an open space of 20 in. to ensure a current from the air inlets to the central well, from the roof of which the foul air is extracted.

Each cubicle is quite private, and has a door provided with a bolt on the inside, which can be opened from the outside with a master key.

The beds, framed of angle iron, are tapered to increase the floor space, and each sleeper is placed with his feet towards the window, so that his head may be away from the draught caused by the window, if open.

The galleries have an unclimbable iron railing 4 ft. 6 in. high surrounding the central well, which is lighted by a 'cabin' roof-light with opening sashes for ventilation in warm weather. The ventilating gas-pendants discharge into extract ventilators over, with mica-flap boxes to prevent down-draught, which ensure ample ventilation at other seasons.

Each gallery is provided with a lavatory block separated from the main building, containing also one w.c. and urinal for night use.

A box for a warder, from whence he can command the entire dormitory, is placed in each hall.

The dormitory halls are approached by a staircase 6 ft. wide, which rises from the entrance-hall and gives access to each gallery, and a staff staircase and lift for linen, &c., are provided in addition to economise labour.

The only parts of the building placed in the basement are the caretaker's house, which complies with the conditions, the disinfecting-chamber, ample coal stores, and heating apparatus.

On the ground-floor a central entrance-hall from Parker-street gives access to the various parts of the building.

Facing the entrance and staircase is placed the office, which adjoins the day-room, and overlooks the dining-room. These two rooms enter left and right from the hall. The day-room, 70 ft. by 32 ft., with a floor space of 7 square feet to each person, gives ample accommodation for entertainments, &c. The efficient lighting and ventilation of this room is assured by means of windows on all sides. A small room, fitted with lockers for the use of 'regulars,' adjoins this room.

The dining-room, 47 ft. by 32 ft., is provided with two large, open fireplaces, and communicates with the kitchen, 32 ft. by 22 ft., which has a hot-plate 50 ft. in length for cooking. The scullery, 21 ft. by 14 ft., with its store, 11 ft. by 9 ft., adjoins these rooms, and a counter is conveniently placed for the serving and receiving of utensils. The grocery-bar, with its store, is placed next the dining-room, and is provided with a counter.

A side entrance for tradesmen and staff is provided, together with a separate entrance for caretaker from the front area. A small stair from his house gives access to the night-porter's box in the entrance-hall.

The laundry block is placed in the rear right-hand corner of the site, and is a building of one floor only, designed to preserve the lights and easements of Messrs. Hunter & Hyland's premises. It consists of receiving-room, washing-room, drying-room, with closets, ironing-room, and linen store, which serves the lift communicating with the dormitories. This block is distinct from the main building, but a door communicates with the rear public corridor, so that lodgers who require washing done may there hand it in.

A glass-covered exercise-yard, 33 ft. by 21 ft., is placed behind the entrance-hall, and leads to the conveniences for day use, which are entirely isolated from and placed in the rear of the main buildings. These conveniencies comprise lavatory, latrine, urinals, troughs for feet washing, baths, and lodgers washing and drying rooms.

Lighting, Heating, and Ventilation.

These details are kept as simple as possible, and full advantage is taken of natural means of ventilation wherever practicable.

The day-room has windows on all sides, some double-hung, and those over the roof of the yard hinged to fall inwards.

The natural ventilation of the dining-room and kitchen is similar to the above, these having windows on three sides.

In addition to the windows, fresh air is admitted to these rooms through perforated bricks at the floor level, this, in cold weather, is warmed before entering the rooms by passing through a hot-water radiator.

The foul air, and products of gas combustion, are drawn into ventilating trunks in the ceiling, and taken into the outer casing of the main chimney-shaft.

Ventilating hoods are placed over the hot-plates in the kitchen to draw off the heated air and fumes, and wherever practicable, throughout, mica-flap valves are inserted in the flues to assist in exhausting the vitiated air.

In the dormitories fresh air is admitted through perforated bricks at each gallery floor-level into a wooden vertical tube, enclosing a 3 in. low-pressure hot-water pipe, which extends the whole height o the dormitories, while the tube is sealed at each floor-level. The external air, after impinging on this pipe, is admitted into the cubicles through adjustable perforated hinged flaps, about 4 ft. 6 in. above the floor-level. Since these flaps are perforated, a certain minimum quantity of air must pass through, and this can be increased at the pleasure of the occupant.

The central wells are ventilated by means of opening sashes in the roof-lights, and over each gas-pendant is placed an "extractor," with mica-flap valve boxes to prevent down-draught.

Through these means a constant change of air is effected in such a way that no inconvenience will be felt by the inmates.

Materials.

The wall generally are built with hard selected stocks. Glazed brown bricks are used on the front elevation up to first floor level, and red brick quoins to the angles and window reveals above. It would be advisable to use white glazed bricks throughout, but the limit fixed to the cost renders this impossible; the internal walls, therefore, are rendered in Portland cement brought to a smooth surface, and left in its natural colour.

Coke breeze concrete for fireproof flooring is adopted throughout on account of its lightness, efficiency, and economy, and concrete lintels are used for window and other openings, with the exception of the Parker-street front.

The flooring to day-rooms and hall is wood-block, of the school-board type, while the kitchen and all other floors are floated in cement.

The staircases are shown to be constructed of Wilkinson's ironstone concrete, though, preferably, with the sanction of the County Council, steps of solid hard wood would be used as being more fire-resisting.

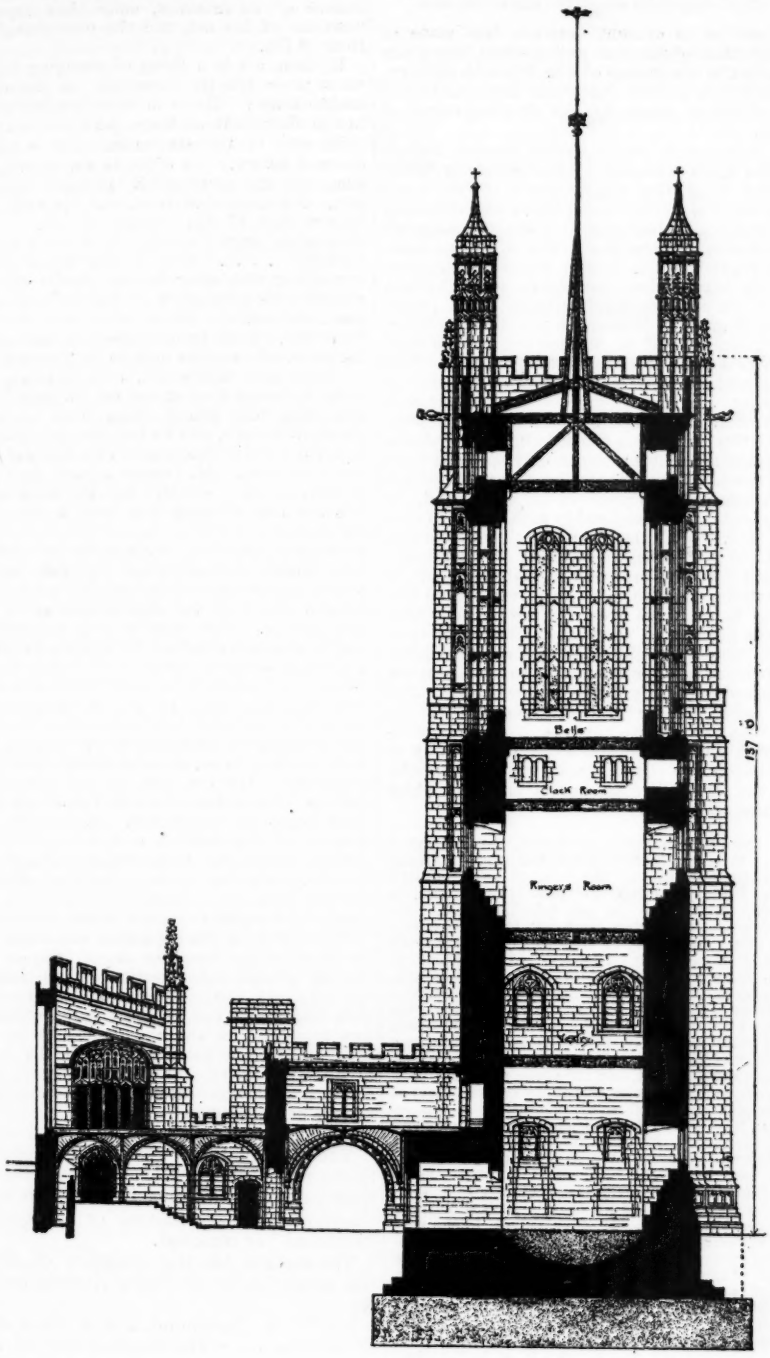
The joinery throughout is yellow deal, and the iron-work shown on detail, etc., from approved firms.

The glass roofing is formed with Hartley's rough rolled plate.

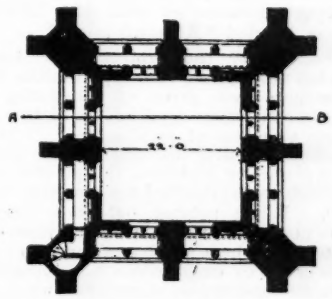
Though not absolutely fire-proof, the structure throughout would be eminently fire-resisting.

PROPOSED BELL TOWER

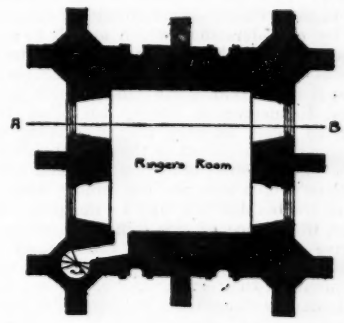
Church of S:Michael : Coventry:



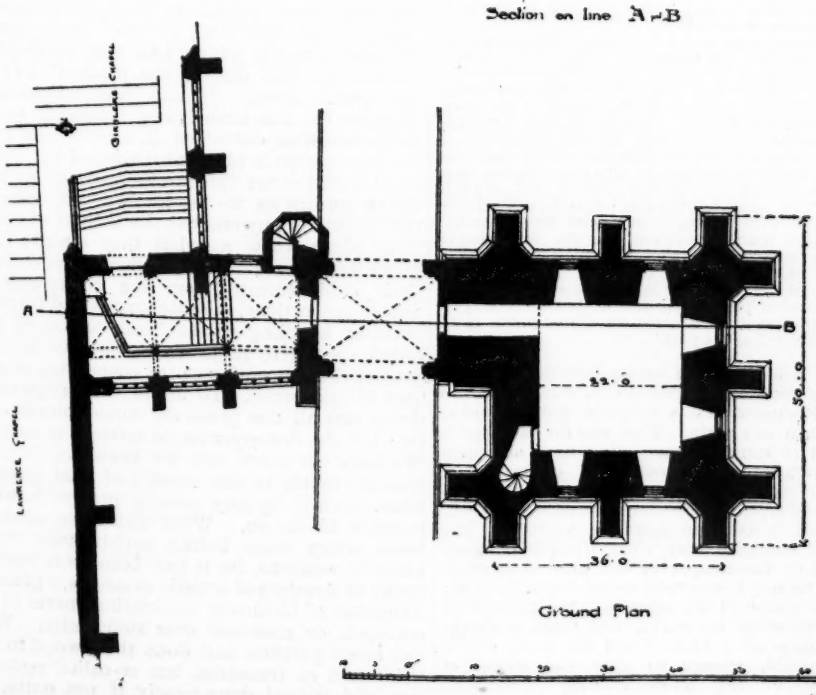
Section on line A–B



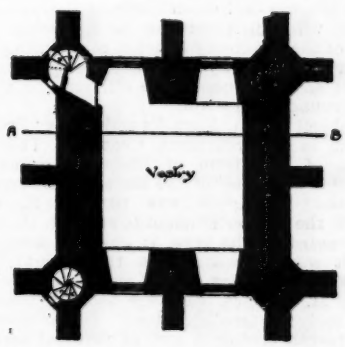
Plan of Belfry Stage



Plan of Ringer's Room



Ground Plan



Plan of Chapter Room

Proposed Bell-Tower, St. Michael's, Coventry. Messrs. Paley & Austin, Architects. Section and Plans.

Sanitary Appliances and Drainage.

In all cases, the flushing of closets and urinals is automatic. The latrine is fitted with Adams's trough closet, but privacy is secured to each user. The urinal also is fitted with Adams's continuous cradle urinal, with slate divisions. The w.c.'s for night use are Bolding's 'Kenon' pedestal closets, which appears to be the best form of pedestal closet, and a valve closet cannot be automatically flushed. The urinals for dormitories are Bolding's 'Station' urinals.

Adams's lavatory (McMath and Adams's patent) is used throughout, so that the supply is under the control of an attendant, and in the lavatory for day use one range of four basins can be left always flowing if desired.

The troughs for the feet washing, to which hot water is laid on, are deep stoneware sinks with plug and chain.

The baths are independent, beaded or semi-Roman.

In the drainage, which the plan sufficiently explains, the rain-water and waste are kept entirely distinct from the soil drains.

The net cubical contents of the building carefully measured amount to 380,310 feet, which allows of a cost of about 6½d. per cubic foot, a price for which it is confidently stated the work could be carried out in a thorough, efficient, and satisfactory manner."

SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS.

THE fourteenth annual meeting of this Society was held last week in the old hall of Barnard's Inn, Holborn, under the presidency of Mr. Philip Webb, who moved the adoption of the Annual Report.

The report commences with the following paragraphs, headed "Alexandrinism":—

"The Society for the Protection of Ancient Buildings has not neglected the opportunities which have sometimes been given of illustrating the mischiefs of 'restoration' by reference to its results in other arts than that of architecture. It has reminded architects that no one thinks now of restoring a picture or a statue, though that was a thing of which no one doubted the propriety a few years ago. It has pointed out that historical records are now edited from a point of view quite different to that which sought formerly to make them more useful by emendations and corrections, and that in all departments of literature which may be called historical, the editing of old authors, for example, it is now acknowledged that to present them as they are found, even with their faults, is better than to correct them by modern standards; and it asks why works of architecture should be less scrupulously dealt with than a painting, a statue, or a manuscript. It is one of the difficulties in the case that the answer which seems so natural should be hindered by considerations which attach to architecture more than to the other arts. It is the art which is most nearly connected with the necessities of life, and it is, therefore, the one in which people do not feel themselves at liberty to follow their inclination so freely as they may in dealing with the antiquity of a document or the authenticity of a picture. The difficulty is no doubt great, but it is less so than people who are unfamiliar with the resources of the builder are apt to imagine. The Committee, in the face of this difficulty, while unable to give to the Members of the Society the professional knowledge required to meet the technical arguments of the restorer and rebuilder, feels the more bound to strengthen in them the repugnance it endeavours to create towards all changes and so-called 'restorations' of ancient buildings by arguments drawn from cognate subjects within the knowledge of all thoughtful and educated persons.

The following extracts from a very able address delivered by Mr. Emile Faguet, at the opening of his course of lectures on French Poetry at the Sorbonne this year, will help the reader to appreciate this question of the possibility or not of reproducing any particular phase of art which was developed under conditions and influences quite different to those which surround its 'revival.'

The subject of Mr. Faguet's address is 'French Humanism in the Sixteenth Century.' The development of this form of literature coincided with the 'renaissance' of the the art literature of Greece and Rome; it was part of it, but, as respects the greater Humanists at least, those of whom Ronsard is the type, it was not merely a revival, it was a *revolt* against the poverty, the emptiness, of the poetry of the Courts of François I. and Henri II. French literature had degenerated since the early fourteenth century. It had become in the sixteenth century a sort of personal accomplishment, often very frivolous and very shallow, without pith or substance. It had lost all character of nationality. Ronsard and the Humanists proposed to revive it by inspiring themselves at new sources, by adopting new themes and new processes, by the contact of other minds. They excited themselves by the translation of ancient poets. They made for themselves a sort of tradition to replace the lost voice of the native muse.

'"Vetus fit animus," said Livy, in retracing the exploits and the virtues of his great ancestors. This was also the motto of the Humanists, ... provoking in them a sort of *suggestion* across the gap of the ages."

The parallel is evident between this state of things and that of English architecture fifty years ago. Like the Humanists of the fifteenth century, our architects sought to reproduce the fertility and beauty of better times by the simple process of imitation.

Both experiments had a certain success, though not of the kind intended. Architecture is better understood after the minute study of so many different schools. Literature gained also in having a wider horizon, in learning to speak the language of men of another race, and in the effort to assimilate and reproduce the beauty conceived in other minds. It became less provincial, more human. But there were grave disadvantages. The people not being Humanist, Humanism was never popular, and never can be, and as it does not address itself to the mass it also receives nothing from it. This is very important, says Mr. Faguet, for the subject of this essay. It is much more so for the art with which we have to compare it. The architect depends for his success on the intelligent collaboration of many associates: he can only speak and act through them. His art is the least personal of all. The writer may shut himself in his study, and, by force of constant companionship with books, may so saturate himself with the ideas and the mannerisms of his model that he becomes almost of the school; but the architect who proceeds in that way, finds, to his misfortune, that the more he leaves behind him the world in which he lives, the farther he is from the help he needs. In literature, Humanism is to a certain extent possible, though, as Mr. Faguet shows, its ideal is never attained. In architecture, it is a mere dream, absolutely impracticable. But we must here give Mr. Faguet's own words. He does not speak of architecture, be it always understood, but his demonstration leads unavoidably to the conclusion we have drawn in this parallel between the art he is speaking [of and that which is more interesting to us:—

'What, then, is Humanism in detail, when analysed minutely? It is, in the first place, the effort to understand and to imitate, to the best of one's ability, the great literary artists of past times. In its first stage, Humanism is an intelligent and ingenious exercise, profitable, perhaps, to the student, but not very fruitful. It is, to call it by its true name, Alexandrinism. There existed at Alexandria, about 300 years B.C., a group of clever writers who studied passionately the old Greek poetry, and forced themselves to imitate its forms, the versification, the phraseology even, hoping thereby to acquire the Greek method of composition, the style, the art. This school became distinguished, its productions were elegant, learned, but rarely great,—or, if some members of it arrived at greatness, it was rather by forgetfulness of their principles in moments of relaxation, of amusement, when they deserted for a time their school, and presented themselves in their proper nature; in their more serious work they acted as if art were nothing but art which may be taught and learnt,—which may be imitated, therefore, and after it has ceased to exist in one place be reproduced in another. It is something less mechanical than this. It is ourselves, in the very depth of our being. It is our mode of thought and perception, the cast of our minds. It is possible to imitate the fashion of our wording, our modes of expression, not the pathos of the voice. Alexandrinism is, then, a heresy, very ingenious and brilliant, but at bottom nothing but the art of *pastiche* taken seriously. There is Alexandrinism in all Humanism. It is seen in the Latin poets who imitate the Greek; it is in Catullus, Tibullus, and Propertius. It is found even in Horace and Virgil; it is in the French poets of the seventeenth century, in Malherbe and in Racine; it is, of course, in Ronsard, and in all his school.

Still Alexandrinism is but the form, I will not say the commonplace, but the elementary form of Humanism. In its deeper, more thoughtful, more ardent aspirations Humanism is better than that. It is a kind of artificial atavism. The Humanist feels the vanity of the Alexandrine that he is in part. He feels the frivolity,—the honourable frivolity if you will, but still the frivolity,—of the man who sees in art nothing but certain fashions, processes, which he has but to study to make his own. He says to himself that of this revived antiquity it is not the art he needs, but the soul; that he must live in his thoughts, with its sentiments, with its faith; that he must have the temperament and the disposition of the artists of past times; that he must revive them in himself if he would do what they did. And this is not so far from the truth. If art is our inmost soul, ancient art is the soul of past times, and if that art is all perfection the first step towards its reproduction is to acquire the spirit of the past.'

Which is as much as to say that the reproduction of ancient art is impossible, since under no possible circumstances is it likely that the soul of the past can live again. That was for each epoch the result of many causes acting with and upon each other, of social conditions, of modes of thought, of national influences even, none of which are likely to repeat themselves; certainly they will never again be found in operation together. The student of antiquity may, then, discipline himself according to the temper of the time he so much admires; he may to a certain extent live in the past; but there is always his other self, the product of the time in which he works, and there is always the influence upon himself and his work of the modern world, enough to give the stamp of modernity to his most cunning 'revivals.' Archæological studies are delightful, but they are of no use to the artist, except to show him that the art he studies has always been one, that its manifestations only have changed, and that *the changes are essential conditions of its existence*, since they represent the relations of his art, and the ever-changing conditions of life.

If, then, art is a thing of changing expressions, what place has the 'restorer' in literature or in architecture? He is an anachronism while living in the nineteenth century; he would fain be of the thirteenth or the sixteenth. He is also a foredoomed failure. He aims at suppressing his own time, and the irrepressible 'present' is always with him. He talks of revivals, and his work is but the lifeless cast of dead forms of art. 'The true Humanist,' says Faguet, 'is of his time.' He is 'himself' . . . . 'after having taken pains to be something else, after having greatly enlarged and enriched his personality;' and he laughs gently at the Alexandrine, whose ideas are those he has borrowed, whose manner even is that of his predecessor, who studies only to be 'correct.'

'Pour mon Œdipe Roi,' said Voltaire, 'j'ai consulté Monsieur Dacier, qui est du pays.' Voltaire was then very young, fresh from his studies of Greek literature, and he had the ambition to write an Œdipe which should avoid the faults of Sophocles and Corneille! M. Dacier advised the restoration of the chorus. Voltaire had the sense to see that this was like advising him to walk about Paris in the costume of Plato; he, nevertheless, introduced the chorus, impelled, perhaps, by the new development which Alexandrinism was then taking, and which, thirty years later, banished paniers and full-bottom wigs from the representations of Corneille and Racine. The theatre very properly led the way in this last effort of the school, which is, after all, but an affair of costume, of dresses and decorations. In literature its most noticeable result has been the historical novel; in architecture, the pride of knowledge has betrayed us into the hopeless attempt to reconstitute our ancient buildings such as they were at some earlier period of their existence. We can put on our bookshelves the curious illustration of ancient manners which we once found so interesting. We cannot so easily dispose of the terrible essays in solid stone and timber which the Alexandrine architect has produced wherever an ancient building offered a field for his ingenuity. These will remain a constant unalterable regret to us and to our children.

It is always in the hope that something may still be saved of the beautiful art of the past that the Society presses this question of 'restoration.' It has to thank the eminent critic from whose very able discourse it has, in great part, condensed this new argument for the opportunity he has given it of presenting a parallel between the revival of architecture in the nineteenth century, and that other revival which amused for a time the *littérateurs* of Alexandria."

The report then goes on to recount the Society's interference, and some of the results, with regard to various buildings in course of "restoration" or removal or proposed to be "restored" or removed.

The motion for the adoption of the report was seconded by Mr. Philip Norman and agreed to.

Mr. W. B. Richmond, A.R.A., then delivered an address on "The Impossibility of Restoration." He said that restoration was a fallacy; they could not bring history back to life again. No man could repeat the thought of another man; it had died with its life. Each special thought through which had been produced a work of art had died in the production of it; the result lived. It had been an isolated thought for the time being, belonging to the individual who conceived it, and it was gone for ever except in his transmission of it. In all great works of art the merits were of so delicate a nature as to be, he believed, scarcely perceptible to any one but the authors of them. They alone knew at what they aimed; they alone were aware of the fine line which divided their achievements from the commonplace. Subtle proportions, delicate curves and turns, a peculiar handling of the brush or use of the chisel special to their work, were as much a part of the conception as the conception was a part of the artist. To arrest the progress of decay was all the preserver would presume to do; but the destroyer would attempt to restore. We knew too much and we knew too little to cast our minds in the moulds of past generations, even if by any natural process it were possible to do so. What had been already taken away from British architecture could never be replaced, for it had been, as it were, a series of murders of artistic creations, a general slaughter of historical associations never to be replaced, or mourned over sufficiently. War and men's passions had done their worst to rid the world of treasures, but so-called restoration had, indeed, done nearly, if not quite, as much; it had left England well nigh bare of her finest monuments.

Correspondence.

To the Editor of THE BUILDER.

KIRKSTALL ABBEY.

SIR,—As I am responsible, and not Mr. Micklethwaite, for the removal of the ivy, shrubs, trees, and vegetation at Kirkstall, and not only there but at Fountains, and other abbeys as well, I should be much obliged if Mr. Benwell [p. 456, *ante*] will give me a few examples where the growth of ivy and trees has aided in preserving old ruins.

I am pleased to hear that through the intervention of the late Lord Edward Cavendish the whole of the ivy has been also cleared off the ruins of Furness Abbey, and a little judicious pointing done.

May such good deeds be done elsewhere!

W. H. ST. JOHN HOPE.

TECHNICAL EDUCATION.

SIR,—In reply to your editorial foot-note in your last issue, in which you say that, if I claim priority for my curriculum, you would point out that the (rejected) scheme appeared in the same number of the *A.A. Notes* as chronicled my appointment to the Chair at King's College, the amusing conclusion being, because the *A.A. Notes* had not previously chronicled my appointment I could not have been previously elected. Pardon my mentioning that the conclusion is fallacious. I was appointed to the Chair as early as March 14.

BANISTER FLETCHER.

*** That is to say, Professor Fletcher was appointed six weeks before the formal publication of the Association scheme in *A.A. Notes*, the said scheme having been first considered two years before, and put into practically its present form one year ago, so that Professor Fletcher's claim for priority cannot count for much. The use of the word "rejected," in regard to the Association scheme, is hardly correct, and was not used by us, as the reader of this letter might infer; the scheme was not "rejected"; certain alterations in the rules of the Association, which were necessary for its working, were objected to, and the whole question was postponed pending the consideration of the alteration of rules.—ED.

BLACKBURN AND EAST LANCASHIRE INFIRMARY NURSES' HOME COMPETITION.

SIR,—The Board of Management of the Blackburn and East Lancashire Infirmary have advertised inviting architects practising in the district served by the charity to send in competitive designs for a proposed new nurses' home, to cost about 3,500*l*. The conditions, which we are assured have been drawn up by the gentleman who is to act as professional assessor, contain the following clause:—"A professional assessor will be appointed, and upon his recommendation, 30*l*. premium will be paid to the author of the best design, which will become the property of the Committee, but he will not necessarily be entrusted to carry out the work. Should the successful competitor be afterwards appointed architect, the premium will then merge into and be a part of the commission." This professional assessor is a F.R.I.B.A. We cannot imagine that any self-respecting architect will be willing to compete under such a clause as the above, and run the risk for the sum offered, which is little more than one-third of the proper remuneration for the work required, of having to relegate the carrying out of his design to some other person. We think that if architects of the standing of the F.R.I.B.A. in question are ready to approve of such a clause as the above in competition conditions, there is but slight chance of the improvement so much to be desired in architectural competition.

STONES & GRADWELL.

10, Richmond-terrace, Blackburn.

THE "WINTON" VENTILATOR.

SIR,—Can any of your readers tell me anything about the "Winton" ventilator? Where can it be got?

J. PRESTON BELL.

DRAINAGE WORKS, PAISLEY.—On the 8th inst., at a meeting of the Police Commissioners, Bailie Brough presiding, a joint report was submitted by Mr. Robert Sharp (Burgh Master of Works) and Mr. Copeland, C.E., Glasgow, in regard to the arrangements prepared for the carrying out of the drainage scheme No. 4, which embraces those portions of the town not already drained. The cost of the scheme is estimated at 13,500*l*., with an additional 1,555*l*. as applicable to district No. 3. The probable yearly expense for the maintenance of the scheme would be about 1 per cent. of the entire cost. Ex-Bailie Paton moved the adoption of the report. Mr. Robert M'Farlane seconded, and the motion was agreed to.

The Student's Column.

VENTILATION AND WARMING.—XXIV.

PRACTICAL APPLICATION AND CALCULATIONS.

TO illustrate the practical application of the principles of both ventilation and warming, and the method of making the necessary calculations, we will take a simple example, and follow the line of investigation that should be taken.

Let us suppose that we wish to ventilate a meeting-hall in a suburban district, which is used for various purposes—concerts, political meetings, dances, bazaars, &c.

The size of our hall is 80 ft. by 35 ft., and 24 ft. average height; it is seated with chairs for 400 persons, and is to be lighted at night by gas.

The first point to be settled is the extent of ventilation we shall provide. For some of the uses of the hall there will undoubtedly be fewer than 400 persons in it, while it is possible that on occasions there may be more. We should, therefore, take the number 400 as our starting point, and provide an ample supply of air for this number. Referring to Chapter I., we see that 3,000 cubic feet per hour for each person would be ample, even allowing for overcrowding. We have also to allow for the pollution by the gas lighting. This we can calculate at 1,000 cubic feet for each of the 300 cubic feet of gas burnt in an hour. We have, therefore,

$$\begin{aligned} 400 \times 3{,}000 &= 1{,}200{,}000 \\ 300 \times 1{,}000 &= 300{,}000 \\ \hline & 1{,}500{,}000 \text{ cubic feet} \end{aligned}$$

of fresh air required hourly, or 416 cubic feet per second.

In Chapter III. we saw that the rate of the incoming fresh air should not exceed 2 ft. per second. We have, therefore, $416 \div 2 = 208$ ft. for the superficial area of our inlets. As the hall is to be used sometimes for dancing, it is necessary that there should be no openings in the floor, therefore we must place our inlet openings next the walls, and, as the gangways will probably also be next the walls, we may, with advantage, bring in our fresh air at its low rate of current, and properly warmed, in a horizontal direction and at a height of about 5 ft. above the floor level. A wooden dado, with suitable perforations at the upper part, giving the required area of inlet opening or a little more, will be a suitable and satisfactory method of solving the problem, and the duct will be formed by the space between the dado and wall.

For the removal of the foul air, we will arrange openings in the ceiling, and form the space above and between the ceiling and roof covering into a foul-air chamber. This we will divide into two compartments, and over the centre of each place an outlet tube 6 ft. in diameter, surmounted with an "automatic" ventilator of the type of Buchan's or Boyle's manufacture, fitted with easily-acting valves to prevent down draught, and flaps for closing when desired. Instead of using two outlet ventilators, we might have only one if the roof is of steep pitch, and with a considerable space between it and the ceiling. The advantage of dividing the foul-air chamber into two with separate outlets is that the extraction will be more evenly diffused. The alternative arrangement should therefore only be adopted when the circumstances admit of evenly distributed extraction with one outlet.

The size of our outlet tubes is thus determined: 416 cubic feet per second is to pass through the tubes; this, with the assistance of the ventilators, may readily be effected without undue friction at the rate of about 7 feet per second, $416 \div 7 =$ say 60 feet superficial area of the section of the two tubes. $60 \div 2 = 30$ superficial feet area of one tube. Area of a 6 feet diameter circle = 28·274, which is sufficiently near. Our rate of current in the tubes is therefore a little more than 7 feet per second.

Returning now to our fresh air supply, we shall find that the best method of admitting the air to the duct behind the dado will be to construct a fresh-air chamber below the floor of the hall, and to propel the air into this fresh-air chamber by means of a rotary fan, which can be placed so as to deliver direct into the chamber, and so avoid loss of power in ducts. An alternative arrangement would be to construct ducts around the walls, which might be preferable if it were desired to utilise the space beneath the hall floor for other purposes. In this case we should incur the expense of forming the ducts, and should require increased power in our fan and engine to overcome the friction.

With such an arrangement as is proposed, the only loss of power through friction of which we need take account is that occurring in the duct or air passage behind the dado. The length of the dado, deducting for doors, will be about 210 ft.; if we allow a clear space behind of 6 in. we have $210 \times \frac{1}{2} = 105$ ft. for the superficial area of the section of the duct, and as we intend to propel 416 cubic feet per second, we shall have a rate of current in the duct of $416 \div 105 =$ say 4 ft. per second.

We now approach the problem of determining what sized fan we require for our particular case. The work we require the fan to perform is to propel 416 cubic feet of air per second through ducts whose sectional area is 105 ft., periphery of section $210 + 210 + (8 \times \frac{1}{2}) = 424$ ft., and length 6 ft., at a velocity of 4 ft. per second. This work has to be done, notwithstanding the resistance of the friction against the sides of the duct, and occurring at the entry of the air into the duct and into the hall.

The loss of power we can express in terms of the velocity, that is, our fan must be capable of driving the air not merely at a velocity of 4 ft. per second, but at some increased velocity, part of the power exerted in producing this latter being expended in overcoming the obstruction.

Referring to Chap. XII. we see that we may calculate the loss of efficiency due to friction of the duct by the formula $C = \frac{KUL}{4S}$. Here we have

$$K = 4 \times 0\,0005\left(\frac{1}{4} + 20\right)$$

$$= 0{\cdot}0405$$

$$U = 424\,;\ L = 6\,;\ S = 105$$

$$\therefore\ C = \frac{0{\cdot}0405 \times 424 \times 6}{4 \times 105}$$

$$= {\cdot}245 = \text{say } \tfrac{1}{4}.$$

This means that our theoretical velocity, or the potential velocity of our fan, must be increased by $\frac{1}{4}$, so that, to maintain the actual velocity of 4 ft. per second in the duct, the fan must be capable of producing a velocity of $1\frac{1}{4} \times 4 = 5$ ft. per second.

We have also to allow for the loss at entry and exit to the duct. This we may take as equivalent to a rounded right-angled turn, as we should, of course, take the precaution to round off both the angularities, and ease the obstruction as much as possible.

From Chap. XI. we see that the loss due to a rounded right-angled turn is $\frac{1}{2}$. Hence, to maintain the 5 ft. per second theoretical velocity we have seen to be necessary, the potential velocity of our fan must be $1\frac{1}{2} \times 5 = 7\frac{1}{2}$ ft. per second. We therefore require from the manufacturer of our fan an apparatus capable of propelling 416 cubic feet of air per second at an initial velocity of $7\frac{1}{2}$ ft. per second. This would be an intelligible order, and the maker could supply for us a fan of his particular pattern which would fulfil the conditions, or we could, if we pleased, design a fan for the purpose. Thus, by referring to the price-list of the Blackman propellers, we see that a 48-in. fan with a 2-h.p. engine would perform the work required in the present case.

For such an example as that we are now considering a gas-engine would be the most suitable means of providing the power for driving the fan. Suitable gearing should be arranged to allow the velocity of the fan, and consequently the amount of fresh air, to be regulated according to the varied circumstances under which the hall would be used.

In any case in which further ducts would be required, the method of calculating the resistances, and the consequent power of the fan, would be precisely similar to that adopted above.

The additional assistance given by the "automatic" ventilators would be ample to overcome the resistance of passing through the openings in the ceiling and the tubes, but, if we pleased, we might, as before, calculate these resistances, and, taking into account the velocity obtained from the heat of the vitiated air, provide sufficient power in our fan to expel the foul air, overcoming the resistances, and so dispense with the "automatic" ventilators.

If we adopted some other means of extraction more regular and constant in working than the "automatic" ventilators, we could reduce the size of our fan, although in this case the ulti-

mate advantage would probably not be on the side of such a course.

We have now to consider the provision to be made for warming our hall, and this we must leave for another chapter.

SURVEYORSHIPS.

DIOCESAN SURVEYORSHIPS.—At a meeting of the Bishop, Archdeacons, and Rural Deans of the Diocese of Durham, held on the 10th inst., Mr. W. J. Moscrop, architect, Darlington, and Mr. Crawford Hick, architect, Newcastle-on-Tyne, were elected Diocesan Surveyors for the Archdeaconries of Auckland and Durham respectively, in the room of Mr. R. J. Johnson, F.S.A., resigned.

THE SANITARY INSTITUTE'S EXAMINATION FOR LOCAL SURVEYORS.—At an examination for Local Surveyors, held by this Institute on June 5 and 6, eleven candidates presented themselves. Questions were set to be answered in writing on the 5th, and the candidates were examined *viva voce* on the 6th. The following candidates were certified to be competent, as regards their sanitary knowledge, to discharge the duties of Local Surveyor:—Howard Riley Felkin, Hammersmith; Thomas James Moss Flower, Bristol; Arthur Gordon Gibbs, Pulborough; Matthew Dodgson Graves, York; Harry James Hills, New Wandsworth; Walter Robert Kay, Bury, Lancashire; Edwin Morley, Walthamstow; and Alfred John Saise, Bristol.

COVENTRY.—At a meeting of the Coventry City Council on the 9th inst., Mr. G. J. E. Jenkins, Aston, was appointed Assistant Surveyor of Coventry, at a salary of 200*l.* a year.

OBITUARY.

MR. JAMES BEAL, L.C.C.—The death took place, on the 11th inst., of Mr. James Beal, a member of the London County Council. He was born in Chelsea in 1829, and for many years followed the occupation of auctioneer and surveyor in Regent-street, being senior partner till a short time ago in the firm of Beal, Son, & Chartres. He will, however, be principally remembered as having taken a prominent part in various matters connected with London municipal government during the last thirty years. It was mainly through his exertions that the Metropolis Gas Act was passed in 1860 and the City of London Gas Act in 1868. Questions of water supply also occupied his attention, and no Parliamentary inquiry upon questions of gas and water was held without his evidence being taken. In former years he was an occasional contributor to the columns of the *Builder*.

MR. FREDERICK BENHAM.—We regret to learn that Mr. Frederick Benham, senior partner in the firm of Benham & Sons, died on the 13th inst.

GENERAL BUILDING NEWS.

NEW CHANCEL, ST. PETER'S CHURCH, BUSHEY HEATH, HERTS. — On the 8th instant the new chancel, vestries, and organ-chamber were opened by the Bishop of St. Albans. The works have been executed at a cost of about 2,000*l.*, by Mr. J. Norris, builder, of Sunningdale, from the designs and under the personal superintendence of the architect, Mr. James Neale, F.S.A. As we propose at a future date to give illustrations of the interior and exterior of this church, we hold over for the present further description of the building. After the consecration service a public lunch was held at which the Bishop took the chair. He was supported on his right by Mr. James Neale, the architect, and on his left by the Rev. Spencer Buller, the Vicar of the parish. The Bishop spoke in high terms of the new work Mr. Neale had done, and referred to his early connexion with their cathedral church, and the value his book on St. Albans had in showing the beautiful old work which he deplored had been so ruthlessly swept away by Lord Grimthorpe.

NEW BUILDINGS, RYDAL MOUNT SCHOOL, COLWYN BAY.—The new buildings in connexion with Rydal Mount School, Colwyn Bay, North Wales, for Mr. T. G. Osborn, M.A., J.P., were formally opened on Tuesday, June 16, by the Rev. Dr. Moulton, of Cambridge, President of the Wesleyan Conference. The additional buildings, which have cost over 5,000*l.*, have been designed by, and carried out under the superintendence of, Mr. T. E. Lidiard James, architect, London. Mr. J. B. Jones, of Llanrwst, was the builder; and Mr. George Malpass, of Sheffield, the clerk of works.

CHURCH, HEAP BRIDGE, LANCASHIRE. — On the 13th inst., Mr. C. Coupe laid the foundation-stone of a new church at Heap Bridge, in the Parish of St. James's, Heywood. The church, which will be one-aisled, will cost about 2,000*l.* The nave will be 60 ft. by 24 ft. 6 in., and the chancel 24 ft. by 20 ft. It will be entered by a timbered porch, adjacent to which will be a bell turret 55 ft. high. In style the church will be Late Decorated Gothic, and will provide seats for between 300 and 400 persons. Lord Derby has given the site of the church. Mr. John Lowe, of Manchester, is the architect.

PROPOSED MARKETS, BIRMINGHAM.—On the 9th inst. the Markets and Fairs Committee of the Birmingham City Council received the sanction of the Local Government Board to the loan which they asked for for the erection of the new dead meat and pig markets. The plans for the pig market have already been prepared, and the work of construction will be proceeded with at once. The plans for the dead meat market will now be proceeded with as quickly as possible.

CONSECRATION OF CHANCEL, HOLT, WILTSHIRE. —On the 9th inst., the newly-added chancel of Holt church, in the parish of Bradford-on-Avon, was consecrated by the Bishop of Salisbury. As the village has gone on increasing, accommodation has been added to the church. The north and south aisles have been added from time to time. Owing to the danger of the nave and roof settling suddenly down, supports have been put in, and a few years ago a new porch and three south windows were placed in the aisle, and pitch-pine seats were substituted for the old ones, as well as choir stalls. The tower is of old Perpendicular work, and in niches are statues of St. Paul and St. Catherine. Upon the principle embodied in the tower, the present new work has been made and carried out by the architect, Mr. Ponting, of Marlborough, and Mr. James Burgess, builder, Westbury. The aisle walls have been strengthened and new buttresses put in, a new nave has been formed, and the walls of the same carried up and made into a clearstory. The two aisles have been roofed in and covered with lead and slates, and a new chancel has been created, with organ-chamber and vestry on the north. The pulpit is of open tracery work, in carved oak. A new stained-glass window has been added to the church by Messrs. Powell, of Whitefriars, under the direction of the architect. The subject is five figures of female saints.

SCHOOL ENLARGEMENT, KEIGHLEY.—The National Day Schools at Keighley have recently received extensions costing 2,000*l.* in the shape of a new infants' school, and class-rooms for the mixed department, the increased accommodation providing about 515 additional school places. The work has been carried out under the superintendence of Messrs. W. and J. B. Bailey, of Keighley.

ALTERATIONS, &C., ST. JOHN'S CHURCH, IVYBRIDGE.—The memorial to Lord Blachford, which consists of the adornment and re-fitting of the chancel of Ivybridge Church, was dedicated on the 12th inst. The work was entrusted to Messrs. Hine & Odgers, Plymouth, the architects of the church. Carved teak wood stalls have taken the place of the former plain deal fittings; the temporary footpace of the Holy Table has been superseded by one of polished red Devon marble, whilst the wall space and re-table behind have also been executed in marble; the marble work is surmounted by a carved reredos, enclosing three panel paintings, the subject treated being the Incarnation; the walls and roof of the chancel and the organ pipes have been decorated in gold and colours. The paintings and decoration are by Mr. Fouracre; the carvings by Mr. S. Trevenen; the marble work is by Mr. Roach, and the woodwork by Mr. T. Crews, Stonehouse.

RE-OPENING OF ALL SAINTS' CHURCH, SEAGRAVE, LEICESTERSHIRE.—This church was re-opened on the 9th inst. by the Lord Bishop of the diocese, after the completion of the first section of its restoration from the plans and under the superintendence of M. E. H. Lingen Barker, of Hereford.

SANITARY AND ENGINEERING NEWS.

THE INCORPORATED ASSOCIATION OF MUNICIPAL AND COUNTY ENGINEERS.—The annual meeting of this Association will be held in London on Thursday, Friday, and Saturday next, June 25, 26, and 27. A very interesting programme has been issued.

THE BEXLEY SYSTEM OF EMPTYING CESSPOOLS. —In our article last week on this subject we inadvertently mis-stated the distance required by the Model By-Laws between cesspools and dwellings. Instead of 50 yards we should have said 50 *feet*.

REGISTRATION OF PLUMBERS.—A meeting of the Bradford District Council, formed in connexion with the Worshipful Company of Plumbers, was held at the Town Hall, on the 10th inst., when a number of rules for the Council were considered and adopted. The rules state that in order that no trade interest or prejudice may operate against any applicant, all applications for registration will be considered by committees, which shall include architects, &c., as well as practical plumbers. All applicants who cannot satisfy the Registration Committee, or any District Committee, of their experience will be required to pass an examination by a Board of Examiners, composed largely of practical plumbers. The rules further stipulate that any person having cause to complain of any registered plumber whom he is employing, either in respect of trade integrity or the sanitary efficiency of the work executed by him, may make such complaint to the Council, who will inquire into it, and forward their report to the Worshipful Company of Plumbers, to be dealt with as they may deem necessary. Lists of the names and addresses of registered plumbers are to be obtainable on application to the Worshipful Company of Plumbers and the Bradford District Council. They are also to be supplied to architects, local sanitary authorities, &c.

"SEWERAGE, RAWTENSTALL".—In reference to the short notice of this work in last week's *Builder* (p. 476) wherein it was stated that the scheme was prepared by Mr. J. E. Swindlehurst, Borough Engineer, Burton-on-Trent, Mr. Henry A. Cutler, the Borough Engineer of Rawtenstall, writes to say that he was associated with Mr. Swindlehurst in preparing the scheme, and his signature appeared on the plans submitted to the Local Government Board. The omission to state this was not ours.

STAINED GLASS AND DECORATION.

CHAPEL, MAYNOOTH COLLEGE.—The Chapel of Maynooth College is to be opened on the 24th inst. The internal decorations and fittings, for which the ceremony has been delayed, are nearly completed, under the directions of Mr. Hague, of Dublin, the architect who has charge of the work. The most conspicuous feature of the whole is one of the largest painted roofs in the United Kingdom. It contains ninety life-sized three-quarter figures, each figure occupying the centre of a panel, and is surrounded by versicles, on scrolls and ornamental work. A great many of the painted windows have also been filled by various firms. The altars are most of them of carved marble by Ryan, of Dublin, and a Mosaic pavement has been laid by Messrs. Burke, of London. The grand organ is by Stalhuth, of Aix, but the case is by Messrs. Buckley, of Youghal. In the choir, Stations of the Cross, each occupying a space of 15 ft. by 8 ft., are being painted by Mr. N. H. J. Westlake, F.S.A., of London, four of which are to be completed for the opening. Mr. Westlake also designed the painted roof, and the figures are from his studio. Mr. Mannix, of Dublin, executed the accessory ornament.

MEMORIAL TABLET, ST. MICHAEL'S CHURCH, TEIGNMOUTH.—A brass tablet has been placed on the north wall of St. Michael's Church, East Teignmouth, to the memory of Mrs. Maitland. The memorial has been executed by Mr. Harry Hems, of Exeter, and is a latten brass, with a border of polished Ipplepen marble.

MEMORIAL TABLET, ST. JOHN'S CHURCH, CHESTER. —There has just been erected in the central arch of the arcade in the west end of St. John's Church, Chester, a tablet to the memory of the late Mr. Thomas Hughes, F.S.A. The tablet is of polished brass and mounted in black marble.

ALTAR, CARMELITE CHURCH, DUBLIN.—On the 15th inst. there was blessed a new marble altar in honour of St. John of the Cross in the Carmelite Church, Clarendon-street, Dublin. The altar is mainly composed of Sicilian marble. In the antependium is carved in marble the arms of the order. On each side are inlaid panels of emperor's red marble, the altar table being supported by four pilasters of Connemara green. In the reredos and at each side of the niche, in which is a decorated statue of the saint, are panels in Carrara marble, carved in the Italian Renaissance order, and in the centre of each are medallion heads of St. John of the Cross and St. Teresa, the reredos being supported by pilasters of Sienna marble, surmounted by semi-circular panels of Galway green marble. The altar has been carried out from designs by the architect, Mr. Hague, of Dublin, and the sculptor is Mr. Herbert Barnes.

FOREIGN AND COLONIAL.

FRANCE.—A considerable fall of cliff has taken place on the shore at Yport.——The railway lines traversing the department of the Eure will shortly be incorporated in the railway system of the Compagnie de l'Ouest.——The Minister of Public Works inaugurated on Sunday last, at Tours, the footbridge above the railway stations, and laid the first stone of the Rabelais and Mirabeau educational establishments.——On June 28 will take place, at Versailles, the inauguration of the monument erected there to the memory of Houdon, the renowned sculptor of the eighteenth century.——The excavations at Arles for the construction of a new railway have led to the discovery of a very fine marble sarcophagus. The sides have relief sculpture illustrating a wedding-scene and wild-boar hunt. On the top is a recumbent statue. The work appears to belong to the first century A.D.——M. Gustave de Breton, corresponding member of the Institut, and Director of the Ceramic Museum at Rouen, has been appointed Director of the Departmental Museum of Monuments Historiques of the Lower Seine, in place of M. Maillet du Boullay, recently deceased. ——The new railway station at Bécon-les-Bruyères, constructed for the Compagnie de l'Ouest, is to be opened in July. It is to form the junction for the Versailles and St. Germain lines.——M. Léon Delhomme, sculptor and member of the Municipal Council of Paris, who exhibited a statue of the elder Carnot at the Salon, has resigned membership of the Société des Artistes Français, as a protest against the decision of the jury in refusing him a medal (!).——The Exhibition of American artists, which has just opened at the Galerie Durand Ruel, consists of 150 works, in paintings and pastiles, and about a dozen works in sculpture.——The Union Syndicale des Architectes Français has just opened, at the Cercle

de la Librairie, its first exhibition, which includes works by the late Aisné, Millet, and Ruprich Robert.——Madame de Beaumont-Castries, sister of Maréchal MacMahon and a sculptor of great talent, has left to the Louvre Baudry's celebrated picture of "La Vérité," which was exhibited at the Salon of 1882.——Falguière's "Diana" at the Champ de Mars is to go to Buenos Ayres after the close of the exhibition, having been purchased for presentation there.——The Académie des Beaux-Arts proceeded on Saturday last to the election of a member in the Section of Sculpture in place of Chapu. M. Mercié was elected by 20 votes out of 34.——The prize founded in memory of Marie Bashkirtcheff, the young Russian artist, has been awarded to M. Jean Baptiste Duffaud, who has already obtained a second medal at the Salon for a painting of an episode from the poem of Mircille.——M. Rouyer, architect, has been commissioned to build the new Mairie for the Tenth Arrondissement.——The death is announced of the sculptor Soittoux, author of the statue of the République which stands in front of the Institut, facing the Pont des Arts. He obtained the commission in a competition opened in 1848 for a statue representing the Republic.

BERLIN.—A set of designs for the proposed new buildings for the Prussian Upper and Lower Houses has been laid before the "Akademie für Bauwesen" for criticism. The criticism has been severe, not only on the design, as such, but also on the programme of requirements formulated by the Parliamentary Committee that has the management of the affair. This latter part of the criticism is to be entirely disregarded by the committee, which considers itself capable of making a list of its own requirements for the architect without outside help.

MISCELLANEOUS.

MODEL DWELLINGS IN GLASGOW.—At the fortnightly Dean of Guild Court held in Glasgow on the 11th inst., Lord Dean of Guild Ure presiding, a number of applications for the erection of new buildings and for permission to alter and make additions to existing premises were granted. Among the applications was one by the Glasgow Workman's Dwellings Company for a lining to erect a tenement of dwelling-houses in Rottenrow.—The Master of Works (Mr. Whyte) took exception to the plans—which provided for the entrance to the houses on the first and higher flats being obtained by balconies running along the front of the building—on the ground, principally, that the erection of the balconies would interfere in a very injurious way with the free space in the front of the windows necessary for light and air.—It was pointed out that buildings with these balconies had been built in Edinburgh and London.—Mr. Borland, who appeared for the Company, explained that some of the directors had gone to London, and, after visiting similar tenements, they returned convinced that there was no objection to them from a sanitary or health point of view.—Mr. Whyte said he had gone to Edinburgh to examine the buildings there, with a feeling in favour of balconies, but when he went into the houses he found one room very cheerful and the other very dull. The dwellers could not tell the reason of that.—The Lord Dean of Guild said that was an objection against all rooms looking into the back. He was in favour of granting the lining. This was an experiment to see if houses could be cheapened.—The application was granted on the understanding that it was not to form a precedent.

SOCIETY OF ENGINEERS.—On the 17th inst. a visit was paid by the Society of Engineers to the Linde British Refrigeration Company's Ice Works at Lower Shadwell and the City and South London Electric Railway Company's Depôt at Stockwell. Among those present were Mr. W. N. Colam (President), Mr. J. W. Wilson, junr. (Vice-President), Mr. Chris. Anderson and Mr. W. G. Peirce (members of Council), Mr. Henry Adams, Mr. Jabez Church, Professor Henry Robinson, Mr. Arthur Rigg, and Mr. A. T. Walmisley (past-Presidents), and Mr. G. A. Pryce Cuxson (Secretary). The works of the Refrigeration Company, which are said to be the largest in Europe, if not in the world, were completed in 1889, and are capable of producing about 120 tons of ice per day, and of storing about 500 tons of frozen meat. With regard to the City and South London Electric Railway Company's Depôt, the whole of the plant for generating the electric current is situated at the Stockwell depôt, and consists of three Edison-Hopkinson dynamos, manufactured by Messrs. Mather & Platt, of Manchester. Each machine is capable of generating 450 ampères at 500 volts, and is driven by a vertical compound engine constructed by Messrs. Fowler & Co., of Leeds. These engines indicate up to 400 horse-power. The high-pressure cylinders are 17 in. diameter, and the low pressure 27 in., stroke 27 in., motive speed 450 ft. per minute, and the steam pressure 140 lbs. per square inch. The fly-wheels are 14 ft. diameter and 29 in. broad, driving the dynamos at 500 revolutions per minute. The current from two machines is capable of working the line at any time, leaving the third in reserve. The hydraulic machinery for working the lifts at the various stations is in the same engine-house as the electric plant, and consists of three 100-horse-power engines and pumps, which deliver into an accumulator at 1,200 lbs. pressure. Two engines are required to do the work, and one is in reserve. The steam is supplied by six Lancashire boilers, 28 ft. by 7 ft., fitted with Vicars's mechanical stokers, and set on Messrs. Livett's improved principles for the prevention of smoke.—Sir George Barclay Bruce, past-President Inst. C.E., has recently been elected an Honorary Member of the Society.

ROCK ASPHALTE.—The Brunswick Rock Asphalte Paving Company, we understand, are laying with this material the new stables just purchased by the Duke of Wellington in Relton-mews, Knightsbridge.

REMOVAL.—Messrs. J. H. Strudwick & Son inform us that, in consequence of the lease of their premises, Montague-chambers, Bedford-street, Strand, having fallen in to the Bedford Estate, they have removed their offices to Falcon-court, 32, Fleet-street, E.C. (opposite St. Dunstan's Church).

UNIVERSITY COLLEGE CONVERSAZIONE.—Professor Roger Smith asks us to mention that any old students in the Class of Architecture at University College who may not have received invitations for the *conversazione* on the 30th (owing to their present addresses not being known at the College), will receive a card if they will send their names and addresses to the secretary at the College.

THE ENGLISH IRON TRADE.—Business in the English iron market during the past week has been very inactive, a state of affairs which threatens to prevail for an indefinite period. There are now very few transactions passing in Scotch warrants, and the future of this branch appears very uncertain. Scotch makers' iron remains quiet, and the various brands are quoted from 6d. to 2s. lower on the week. Middlesbrough pig is inactive, most of the production being turned into warrants. The price of No. 3 pig is, however, 3d. higher. Bessemer iron is quiet, but quotations are firm at an advance of 1s. for mixed numbers. There is a somewhat improved tendency noticeable in manufactured iron, but rates continue unremunerative. Tin-plates are only in moderate demand, and prices have been further reduced. The outlook in the steel trade generally is far from promising, and shipbuilders and engineers experience a scarcity of new orders. Although the coal trade continues fairly steady prices incline towards a reduction.—*Iron.*

ROYAL METEOROLOGICAL SOCIETY. — The concluding meeting of this Society for the present, session was held on Wednesday evening, the 17th instant, at the Institution of Civil Engineers, 25, Great George-street, Westminster, Mr. Baldwin Latham, M.Inst. C.E., President, in the chair. Mr. J. J. Colman, M.P.; Mr. E. B. Dukoff-Gordon, B.A.; Mr. G. E. Leon; Mr. T. de C. Meade, Assoc. M.Inst. C.E.; and Mr. F. Russell, F.R.G.S., were elected Fellows of the Society. Mr. A. J. Hands, F.R. Met. Soc., gave an account of a curious case of damage by lightning to a church at Needwood, Staffordshire, on April 5, 1891. The church was provided with a lightning-conductor, but Mr. Hands thinks that when the lightning struck the conductor a spark passed from it to some metal which was close to it, and so caused damage to the building. Mr. W. Ellis, F.R.A.S., read two papers (1) "On the Mean Temperature of the Air at the Royal Observatory, Greenwich, as deduced from the photographic records for the forty years from 1849 to 1888." (2) "On the Comparison of thermometrical observations made on a Stevenson screen, with corresponding observations made on the revolving stand at the Royal Observatory, Greenwich." Mr. W. F. Stanley, F.R. Met. Soc., exhibited and described his "Phonometer," which is really a new form of chronograph designed for the purpose of ascertaining the distance of a gun from observations of the flash and report of its discharge, by the difference of time that light and sound take in reaching the observer. The instrument can also be used for measuring the distance of lightning by timing the interval between the flash and the report of the thunder. A paper was also read by Mr. A. B. MacDowall on "Some Suggestions bearing on weather prediction."

LEGAL.

CASE UNDER THE METROPOLITAN BUILDING ACT.

WHAT IS A "BUILDING?"—TEMPORARY STRUCTURES.

THE case of "The London County Council *v.* Candler" originally came before the Court on November 24, 1890. The "Prince of Wales" Tavern, at the corner of Coldharbour-lane, Brixton-road, is undergoing extensive alterations by the defendant builder, under the supervision of Mr. Cruwys, the owner's architect. The house is set back from the Brixton-road by the intervention of a large open space, and for the accommodation of the business during the builder's operations a wooden one-story erection has been built on this space 10 ft. from the highway. Notice was duly given to Mr. Parsons, the District Surveyor, who made no objection, and who has been paid his fee. But the London County Council summoned defendant for penalties under the Amendment Act 1882, sec. 13, "for erecting a wooden structure or erection of a movable or temporary character without a licence in writing first had and obtained from the Council for the erection or setting up of such structure or erection." On this occasion defendant pleaded the end of the section, which exempts such temporary structures "erected by a builder for use during the construction, alteration, or repair of any building;" but the Council contended that the phrase in the exemption part of the section "erected by a builder for use" meant for use by the builder; whereas in this case it was used by the licensed victualler in which to carry on his trade. The magistrate (Mr. Hopkins) dismissed the summons, but at the instance of the London County Council granted a special case, which was argued in April this year before the Queen's Bench Divisional Court, when Justices Grantham and Smith reversed the decision of the magistrate, and held that the exemption in sec. 13 of the 1882 Act extended only to temporary structures for *use by the builder*, and not to those used by other persons, and the case was remitted to the magistrates for adjudication.

On June 15 the case was further heard at the Lambeth Police-court, when it was urged for defendant that the Council had no *locus standi*, and that the prosecution, if any, should be by the District Surveyor; but, although it was admitted by the prosecuting solicitor in answer to the magistrate that the Council had not the general powers of the District Surveyors, the magistrate over-ruled the point. The further point was then taken on behalf of the defendant that the structure complained of was a building which, not exceeding 30 ft. high, being of the cubical capacity of 19,000 ft. only, and distant more than 8 ft. from the street and more than 30 ft. from the nearest buildings and ground of adjoining owner, was exempt under the fourteenth of the series of exemptions in sec. 6 of the Building Act of 1855, which exemptions were expressly maintained in sec. 13 of the Amendment Act of 1882. The prosecuting solicitor admitted the dimensions and distances as correct, and as complying with such exemption clause, but contended that this clause applied only to "buildings," and that what was under discussion was not a "building," but a "wooden structure or erection of a movable or temporary character," and contended that no such structure or erection could be legally put up anywhere within the Metropolitan area, no matter how far distant from the street or from other buildings or other owners' land, without the licence of the London County Council being first obtained.

Mr. Parsons, District Surveyor, was examined, and deposed that he considered the building exempt, and that no licence was required, and that he, therefore, had not reported it to the Council.

Mr. Arthur Harston, F.S.I. (A. & C. Harston), architect and surveyor, gave evidence that the building was one story high, constructed of timber on a brick foundation let into the ground, and was roofed with iron; it contained a bar, dining-room, kitchen, and beer and spirit store; it was not movable as a whole, and *qua* building was not temporary, as it was capable of lasting from twenty to thirty years, and that he considered it to be a "building" which in its construction is within the operation of the Act of 1855, and of which notice should be given to the District Surveyer, who should survey it; and that but for the facts that from its situation and cubical contents it was exempted from the operation of the first part of the Act of 1855, the District Surveyor should properly object to it as an "irregular building," but the exemption being expressly continued in the Amendment Act of 1882, he considered that no licence from the Council was necessary.

Mr. Cruwys, the architect of the tavern building, concurred.

The magistrate (Mr. Hopkins) said the only point was whether the erection in dispute was a "building" or was it a "structure"? He held it not to be a "building" but a structure of a temporary character, therefore illegal under sec. 13 of the 1882 Act, unless licensed by the County Council; and that not being a "building" it did not come under the exemption in sec. 6 of the Act of 1855. He therefore convicted defendant in a fine of £5 and 5s. per day for twenty-six days, and allowed the County Council £5. 5s. costs.

The prosecuting solicitor was Mr. Burton, of the Solicitors' Department of the London County Council. The defendant's counsel was Mr. Germaine, L.C.C.

It is probable that the decision will be appealed, being on a point not included in the special case on which the Divisional Court gave judgment in April. —*Communicated.*

THE OFFICE OF CITY ARCHITECT.—The *City Press* of Wednesday stated that the Officers and Clerks' Committee of the Court of Common Council were to present a report to the Court at its meeting on Thursday with a recommendation that a successor shall be appointed to the late Mr. Peebles at a salary of 1,000*l.* a year, and that the person appointed shall in the future be designated City Surveyor. We had not learned the fate of this recommendation up to the time we went to press. In addition to the names we have previously mentioned, we see it announced that Mr. F. R. Farrow is a candidate for the appointment.

COMPETITION, CONTRACTS, AND PUBLIC APPOINTMENTS.

COMPETITION.

Nature of Work.	By whom Advertised	Premium.	Designs to be delivered.
Intermediate School, Ystalyfera, Glamorganshire	Building Committee	10*l.* 10s.	June 30

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered
*Supplying and Laying Tar Paving	Beckenham L. B.	G. B. Carlton	June 22
*Officers' House, Palling, nr. N. Yarmouth	Admiralty	*Official*	June 23
*Belgian, Guernsey, &c. Granite	Ilford Loc. Bd.	do.	do.
*Road Works	Lewisham Bd. of Wks	do.	do.
*Public Elementary Schools	Howe School Board	T. Simpson	do.
Masonry, Aberdulais Bridge	Neath District High. Board	D. M. Davis	do.
Masonry of Bridge, Resolven	do.	do.	do.
Providing and Laying Sewer Pipes, Barony Drainage	Lanark District Com.	W. R. Copland	do.
Destructor Buildings, &c.	Aston Manor Loc. Bd.	W. A. Davies	do.
Drainage Works, Polruan	Liskeard, R.S.A.	do.	June 24
Limestone Road Metal (1,500 tons)	Nantyglo and Blaina Loc. Bd.	do.	do.
*Two Upright Heating Stoves	Greenwich Union	do.	do.
Sewerage Works	Altrincham L. B.	Jno. Stokoe	June 25
*Erection of Theatre	Merthyr Theatre Co. Lim.	T. C. Wakeling	do.
*Extending Room and Dividing Ward, New Cross	Met. Asylums Bd.	Jarvis & Son	do.
*Paving Two Coal Yards, Stockwell	do.	do.	do.
Coal Yard and Cattle Mound, Salford	Lancs. & Yorks. Ry Co.	*Official*	do.
Warehouse, Royton	do.	do.	do.
Boundary Wall, &c. Penylan-road	Cardiff Corporation	W. Harpur	do.
Sewerage, Bridge, and Road Works	do.	do.	do.
Main Sewerage	Sheffield Corporation	G. Alsing	June 26
*Sewers Work	Walthamstow Loc. Bd.	G. W. Holmes	do
Additions and Alterations to Chapel, Penpergwm, near Abergavenny	.....	Thos. Roderick	do.
Twenty-six Cottages, Boundary Wall, &c.	Consett (Durham) Indus. & Prov. Soc.	.....	June 27
Alterations to Church, Newton Reigny, Penrith	.....	C. J. Ferguson	do.
Alterations to Church, Wasdale Head, Cumberland	.....	do.	do.
Wesleyan Chapel, Ermington, South Devon	.....	H. J. Snell	do.
Gas-holder, Iron Roof, and Bridge (3 contracts) at Gas-works	Stafford Corporation	J. F. Bell	do.
Stabling, House, &c.	Consett (Durham) Industrial & Prov. Soc.	W. S. Shell	June 29
*Sewering and Making up Roads, &c.	Hendon Loc. Bd.	S. S. Grimley	do.
*Pavior's Work	Vestry of St. Mary, Islington	*Official*	do.
*New Street Works	Camberwell Vestry	do.	do.
*Road Works and Street Improvements	Toxteth Park L. B.	J. Price	do.

CONTRACTS.—*Continued.*

Nature of Work or Materials.	By whom Required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.
*Broken Granite, Granite Kerbs, &c.	Boro' of Croydon	W. Powell	June 30
Alterations, &c. at Workhouse	Newton Abbot Guns.	S. Segar	do.
*Painting, &c. Works at Infirmary	Paddington Guardians	A. & C. Harston	do.
New Cemetery	Witton & Dane Bridge (Chester) Burial Bd.	Jas. Holland	do.
*Construction of Reservoir	Bideford Corporation	Baldwin Lathem	July 1
*Alterations, &c. Western Fever Hospital	Metropolitan Asylums Board	A. & C. Harston	do
Town Hall, Tonypandy	Town Hall Co. (Lim.)	R. S. Griffiths	do.
Pumping Machinery, Boilers, Engines, &c.	Gothenburg (Sweden) Waterworks Board	*Official*	do.
*Underground Urinals	Com. of Sewers	do.	July 3
*Brick and Pipe Sewers, &c.	Smethwick Local Board	Harris & Harris	do.
Iron Bridge Work, Walcot	Salop C. C.	A. T. Davis	July 4
Schools, Laira, Devon	Egg Buckland & Laira Green School Board	H. J. Snell	do.
*Inner Lining to existing Gasholder Tank	Sheffield U. Gas Light Co.	F. W. Stevenson	July 6
Widening Bridges	East Sussex C. C.	H. Card	do.
*Mason's Work and Repairs to Mortuary, &c	Camberwell Bur. Bd.	— Whellock	do.
*Road Materials	Acton Local Board	D. J. Ebbetts	July 7
Castings, &c.	Carlisle Gas Committee	J. Hepworth	do.
Lime (600 tons), &c.	do.	do.	do.
*Alterations and Additions to Workhouse	Fulham Union	H. Saxon Snell	July 16
*Additions to Hartley Institute, Southampton	The Council	*Official*	July 18
*New Vicarage, House, and Offices, near Spalding	The Committee	.....	July 22
*Shops, Offices, and Citadel, Sheffield	Salvation Army	W. Gilbee Scott	No date
*Citadel, Southsea	do.	do.	do.
*Builder's Work, Painting, &c.	Mile End Old Town Guardians	*Official*	do.
Sixteen Houses, Roundhay-road, Leeds	.....	Jas. Charles & Sons	do.
Additions and Alterations to Warehouse, &c. North-street, Leeds	G. E. Hartley	W. S. Braithwaite	do.
Alterations St. John's Church, Hunton, Jervaulx	.....	Thos. Winn	do
Reservoir Work, Iron Works, Govan, N.B	.....	R Stewart	do.
Mission Church, Woodhouse Mill, near Sheffield	.....	John D. Webster	do
Alterations to Premises, Byker, Durham	J. Richardson	A. P. Farthing	do.
Church, St. Mary's, Gateshead	.....	Stephen Piper	do.
Re-building Premises, South Shields	J. Fenwick & Sons	T. A. Page & Son	do.
Road-making and Sewerage, Whitley, Durham	.....	H. Gibson	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary	Applications to be in
*Two Assistant Road Foremen	West Ham Corporation	2*l.*	July 4

Those marked with an Asterisk (*) are advertised in this Number. *Contracts, pp.* iv., vi., *and* viii. *Public Appointments, p.* xx.

CAPITAL AND LABOUR.

THE LOCK-OUT OF LONDON CARPENTERS AND JOINERS.—The situation remains practically unchanged as the end of the fourth week of the lock-out, and the sixth week of the strike, approaches. The workmen have issued a manifesto appealing to workmen generally to help them with funds, and stating that "the Master Builders' Association have, up to the present, refused to make the slightest approach toward an honourable settlement, although we have made repeated efforts to do so. They have been most active in their attempts to replace the men locked out, by both advertising and employing agents throughout the country districts, and also by attempting to obtain foreign labour; but so far our efforts to keep the shops and jobs clear of blacklegs have been successful, though they have been at the same time very expensive." We are authorised to state that there is no truth whatever in the reports that the masters have declined to meet the men. Since the conference on May 1 last, no communication of any kind whatever has been received from them. As to other statements of the men, Messrs. Mowlem & Co., we hear, only require twenty more men to fill up their shops and jobs. Messrs. Patman & Fotheringham have all the men they require on their outside works, but have still some difficulty in getting men into the shops, owing to the activity of the pickets. The *Daily News* of Thursday says that the executive of the London United Trade Committee of Carpenters and Joiners report that in response to their appeal for funds on behalf of the 3,000 men locked out or on strike, contributions are coming in freely; whilst on Wednesday, contingents of workmen left London for Bournemouth and Eastbourne, and written applications for carpenters and joiners were received from Wolverhampton and Burton-on-Trent.

MEETINGS.

SATURDAY, JUNE 20.

Dundee Institute of Architecture. — Excursion to Anstruther, Elie, and District.

MONDAY, JUNE 22.

Royal Institute of British Architects.—(1.) Presentation of the Royal Gold Medal to Sir Arthur W. Blomfield, A.R.A. (2.) Mr. J. Tavenor Perry on "Mediæval Architecture in Sweden." 8 p.m.

THURSDAY, JUNE 25.

Incorporated Association of Municipal and County Engineers.—Annual Meeting in London. Presentation of Report and Premiums and President's Address, 12 noon. (1.) Mr. R. Godfrey on "Wayleaves and Easements." (2.) Mr. T. Walker on "House Drainage." (3.) Mr. E. J. Silcock on "Creosoting Timber." (4). Mr. W. Thomas on "Surveying." 2.15 p.m.—Annual Dinner, Holborn Restaurant. 6 30 p.m.

Victoria Institute.—Annual meeting: Address by Mr. Naville. 8 p.m.

FRIDAY, JUNE 26.

Incorporated Association of Municipal and County Engineers.—Annual Meeting (continued). (1.) Mr. W. H. Preece on "The Relative Merit and Cost of Gas and Electricity for Lighting Purposes." (2.) Professor Robinson on "Electric Lighting by Municipal Authorities." (3.) Mr. W. Spinks on "Some Suggestions in Relation to Private Improvements" 11 a.m.—Visit to Messrs. Doulton & Co.'s works, Lambeth. 1 p.m.—Visit to the Electric Railway Depôt Works, Stockwell. 3.15 p.m.—Visit to the Naval Exhibition. 5 p.m.

Royal Institution.—Faraday Commemoration Lecture, by Professor Dewar, M.A., F.R.S. 9 p.m.

SATURDAY, JUNE 27.

Incorporated Association of Municipal and County Engineers.—Annual Meeting (continued). Visits to the Tower Bridge, Deptford Abattoirs, Electric Supply Corporation Works, Deptford, and The Outfall Works at Crossness.

Liverpool Engineering Society.—Summer Excursion to the Thirlmere Aqueduct.

Glasgow Architectural Association.—Visit to Bothwell Castle.

RECENT PATENTS:

ABSTRACTS OF SPECIFICATIONS.

1,578.—FIREPLACES: *R. Jewell.*—The fireplace which is the subject of this patent is made with an inner chamber, surrounded by incandescent fuel. From the lower end of this chamber a flue leads up the back of the fireplace and terminates in a downward-directed opening in front. On a fire being lighted the heated column of air and gases ascending inside the chamber produces down draught, and the smoke, &c., is also drawn down and consumed within the chamber.

8,668.—VARNISHES: *B. Piffard.*—The process of manufacture referred to in this specification consists in mixing colophony with lead, oxide, and wax, or waxy matter, then fusing the mixture, drawing off the clear liquid portion, and afterwards dissolving it in a solvent.

9,489.—IMPROVEMENTS IN WATER-CLOSETS: *J. & A. Duckett.*—For multiple closets constructed according to this patent, contracted tubular connexions interpose between the closet basin and the supply, thus ensuring a uniform depth or stratum of water throughout the system.

9,977.—VENTILATORS: *R. L. Hickes.*—According to this invention, a small wooden framework, with perforated metal or wire gauze, is placed at the bottom of the open window, the space between the two sashes then assisting in the ventilation without draughts.

9,984.—COWLS OR CAPS: *J. Watson.*—In the cowl which is the subject of this patent, several concentric cylinders are used; the inner cylinder is closed at each end, and fitted with three or four vertical plates connecting the inner cylinder with an intermediate concentric cylinder: this is connected to the outer cylinder by other radial plates. The top of the outside cylinder is fitted with an annular cover, which is supported by a smaller cylinder or convoidal connexion with the flue to be ventilated; openings are made for the escape of air and gases. All tubes fit together by a bayonet joint.

17,417.—DOOR HANDLES: *G. Lewin.*—The shank of the handle is made with two collars or flanges with a small space between the two to receive the rose, which is fashioned of peculiar shape, so that it will not allow the handle to be withdrawn until turned into position.

19,081.—WORKMEN'S FLASK: *D. W. Kerr.*—The flask which is the subject of this patent is of metal, and is of cylindrical shape, with a conical shoulder having a double brass screw on top. The socket is soldered on to the top of the flask,—half the screw outside, half inside. When the outside half of screw is screwed on to the flask the cup is then used as a filler; when the cap of the screw is on it is used as a drinking-cup; when the cup is inverted and the inside part of the screw turned into the flask, the cup can be screwed down, making the whole perfectly tight.

NEW APPLICATIONS FOR PATENTS.

June 1.—9,152, G. Chisholm, Jun., Locking and Unlocking, automatically, Window-sashes, &c.—9,165, H. Fitzpatrick, Springless Locks.—9,186, J. Sim, Fittings for Windows, Doors, &c.—9,200, K. Werzinger, Stove or Heating Apparatus.—9,202, C. Tuckfield, Catch for Doors and Gates.—9,216, S. Jefferies, Machinery for making Bricks, Tiles, &c.—9,220, H. Godwin and W. Hewitt, Fender, Hearth, Wall, and other Tiles.—9,235, C. Jarman, Plumber's Stove.

June 2.—9,312, G. Brown, Inlet Air-ventilating tubes.—9,319, W. Thompson, Process and Compositions for Coating Damp Walls, &c.—9,329, J. Bousfield, Glazing Bars.

June 3.—9,360, R Ewing, Sewer-pipe Joints.—9,378, F. Query, Filter Bricks.—9,389, T. Unwin, Picks, Mason's Hammers, &c.—9,421, E. Pratt, Portable Scaffolding.—9,440, W. Horn, Metallic Lathing for Walls.—9,443, G. Moore, Sash-fastener.

June 4.—9,464, J. Gough, Sash-fastener.—9,472, W. Trousdale, Door-latches, &c.—9,516, T. Clark, Sash-fastener.—9,521, J. Galbraith, Hinge for automatically closing Gates, &c.

June 5.—9,526, L. Labois, Manufacture of White Lead.—9,531, I. Giraud and I. Marini, Apparatus for Working Stones and Shaping them into Cornices.—9,541, S. Hill, Fastening for Doors, Window-sashes, &c.—9,562, A. Browne, Construction of Roadways.

June 6.—9,578, J. Fryer, Ventilators or Extracting Cowls.—9,605, W. Walker, Slop Stones and Jointing the Waste-pipe thereto.

PROVISIONAL SPECIFICATIONS ACCEPTED.

7,138, E. Wehrli, Facings or Covering Plates or Slabs for Architectural Purposes.—7,429, A. Simmons, Tap Socket and Pipe Connexion or Sleeve for Pipes to enable water or gas to be drawn from any desired part of a pipe without the usual joint; applicable also for closing the open parts of burst pipes.—7,475, R. Jeffrey, Door Knockers.—7,507, A. Henning, Sash-fastener.—7,576, W. Alexander, Sash-fastener.—7,631, A. Adams and J. Hallam, Sash-fastenings.—7,646, F. Gibbons, Window-sashes.—7,650, H. Downing, Sash-fasteners.—7,950, F. Matthews and T. Westaway, Sash-fasteners.—7,968,

J. Hunter, Sash-fastener.—8,597, A. Haigh, Woodsawing Machines.—8,717, A. Laverack, Heating Buildings, &c.—8,739, C. Everson, Metal Roof.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to Opposition for Two Months.

7,347, C. Kimplen, Brick-making Machines, &c.—7,567, W. Martin and others, Window-sashes.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

JUNE 4.—By *Worsfold & Hayward* (at Dover): 1 to 8, River-st., River, near Dover, f., 400*l.*; five freehold cottages, 330*l.*; a plot of freehold land, 200*l.*; f. residence, "Beech Grove," Ewell, near Dover, r. 50*l.*, 630*l.*; two plots of f. land, Park-rd., 255*l.*; a plot of f. land Wellington-rd., 100*l.*

JUNE 8.—By *W. J. Newell:* 209, 211, and 213, St. James's-rd., Bermondsey, u.t. 44 yrs., g r. 9*l.* 12s., r. 91*l.*, 810*l.*; 45, The Grange, u.t. 28 yrs., g.r. 26*l.*, 125*l.* By *J. A. Smith:* F.g.r.'s of 12*l.*, with reversion in 86 yrs., Heathfield-gardens, Chiswick, 300*l.*; 34 and 36, Heathfield-gardens, f., r. 74*l.*, 925*l.*; 2, 3, and 6, Coningham Mews, Shepherd's Bush, u.t. 72 yrs., g.r. 4*l.*, r. 67*l.* 2s., 680*l.*

JUNE 9.—By *W. Levens*: Detached house, Southend-road, Beckenham, u t. 81 yrs., g.r. 40*l.*, 1,725*l.*—By *Debenham, Tewson, & Co.*: 3 to 8, Mulberry-st., Whitechapel, f., r. 170*l.*, 2,520*l.*; 77 and 79, Wakering-rd., and 1. 2, and 3, Russell Cottages, Barking, f., r. 97*l.* 5s., 700*l.*; 44, Carlton-rd., Tufnell Pk., u.t. 84 yrs., g.r. 8*l.* 7s. 6d., 810*l.*; 19, Old Ford-rd., Bethnal-green, f., r. 40*l.*, 600*l.*—By *Mullett, Booker, & Co.*: 4, Inverness-mews, Hyde Pk., u.t. 57 yrs., g.r. *tl.*, 230*l.*—By *H. Donaldson*: 8 and 10, Glebe-st., Chiswick, u.t. 77 yrs., g.r. 7*l.*, r. 52*l.*, 250*l.*—By *Harman Bros.*: F.g.r. of 20*l.*, with reversion in 91 yrs., Mayo-rd., Willesden, 420*l.*; leasehold house, Merton-rd., Wandsworth, u.t. 92 yrs., g.r. 9*l.*, r. 41*l.*, 225*l.*—By *Humbert, Son, & Flint:* 71, 72, and 73, High-st., and 1 to 5, King-st., Oxford, f., area 7,810 ft., 6,900*l.*; cottage residence and 2r. 17p.. f., Cowley, near Uxbridge, 550*l.*—By *Messrs. Chadwick*, Kensington-pk.-rd., Notting Hill, f.g.r.'s of 70*l.* 13s., with reversion in 45 yrs., 2 350*l.*; f.g.r.'s of 65*l.* 2s., with reversion in 59 yrs., 1,950*l.*; f.g.r.'s of 79*l.*, with reversion in 59 yrs., Pembridge-rd., 2,280*l.*; f.g.r.'s of 50*l.*, with reversion in 22 yrs., Portobello-rd , 2,500*l.*; f.g.r.'s of 150*l.*, with reversion in 49 yrs., Bennett's-yd., 4,250*l.*; 5, Adelaide-pl., London Bridge, u.t. 21 yrs., g r. 150*l.*, r. 355*l.*, 990*l.*; "London Bridge Warehouse," Lower Thames-st., u t. 21 yrs , no g.r. 2,100*l.*; Five Arches in Lower Thames-st., u t. 2 yrs , rent charge 5*l.*, 555*l.*; 10, Southwark Bridge-rd., Southwark, u.t. 23 yrs., g.r. 60*l.*, r. 140*l.*, 690*l.*; a warehouse in Rose-alley, u.t, 23 yrs., g.r. 60*l.*, r. 150*l.*, 700*l.*; 4 to 12 (even) Brockham-st., and the chapel in Cole-st., u.t. 4 yrs., g r. 21*l.*, r. 202*l.* 16s., 430*l.*

JUNE 10.—By *Hobson, Richards, & Co.*: F.g.r. of 31*l* 10s., with reversion in 88 yrs., Wandsworth, 635*l.*; f g.r. of 10*l.* 10s., with reversion in 88 yrs., Bruntwood-ter., 240*l.*; f.g.r. of 15*l.* 15s., with reversion in 87 yrs., Cumberland-villas, 315*l.*; f.g.r. of 9*l.* 9s., with reversion in 87 yrs., Turtle-rd., 180*l.*—By *Boyce & Evens:* 28, Richmond-rd., Dalston, u.t. 63 yrs., g.r. 6*l.* 10s., r. 34*l.*, 300*l.*; 43, Newton-st., u t. 41 yrs., g.r. 4*l.* 4s., r. 33*l.*, 340*l.*; 22 to 36 (even), 40 and 42, Myrtle-st., and a block of workshops, u.t. 63 yrs., g.r. 150*l.*, r. 833*l.*, 4,500*l.*—By *Beadel & Co.*: "Alsteads Farm," Essex, f., 176a. 1r. 35 p., 2,550*l.*; "Lawns Farms," 119a. 3r. 29p., f., 1,500*l.*; an enclosure of f. land, 10a. 3r. 4p., r. 10*l.*, 150*l.*; "Chiswick End Farm," Melbourn, Cambs., 17a. 1r. 19p., f., r. 40*l.*, 1,300*l.*; enclosures of arable land, 79a. 1r. 22p., f., 2,655*l.*; enclosures of orchard land, 1a. 0r. 29p., f., 185*l.*; several cottages, houses with shops, &c., f., 1,390*l.*

JUNE 11.—By *D. J. Chattell:* F. land, 4a. 1r. 39p., Kemnal-rd., Chislehurst, 3,000*l.*; "Preston Farm," Ightham, Kent, 16a. 1r. 14p., f., r. 64*l.*, 1,780*l.*—By *C. C. & T. Moore:* No. 114, East India Dock-rd., f., 550*l.*; 56, Avenue-villas, Wallington, u.t. 78 yrs., g.r. 10*l.*, 50*l.*; 79 and 81, St. Dunstan's-rd., Mile End, u t. 59 yrs., g.r. 9*l.*, 230*l.*; 54, Brownlow-rd., Dalston, u.t. 54 yrs., g.r. 4*l.*, 330*l.*; 20 and 22, St. Leonard's-av., Bromley-by-Bow, f., r. 42*l.* 12s., 385*l.*—By *G. Robins:* I.g.r. of 75*l.* 15s., u.t. 30 yrs., g.r. 30*l.*, Lisson-grove, 640*l.*; 2 to 12 (even), Lonsdale-rd., Bayswater, u.t. 52 yrs., g.r. 36*l.*, r. 242*l.* 14s., 1,700*l.*; I.g.r. of 40*l.*, u.t. 52 yrs., g.r. 14*l.*, Ledbury-rd., 455*l.*; 93 and 95, Pembroke-st., Caledonian-rd., u.t. 62 yrs., g.r. 5*l.*, r. 90*l.*, 530*l.*—By *E. Wood*: 14, Stratford-pl, St. Pancras, u.t. 53 yrs., g.r. 9*l.*, r. 38*l.*, 340*l.*; 3, Upper Station-rd., Finchley, u.t. 83 yrs., g r. 11*l.*, r. 31*l.* 4s., 100*l.*; 28, Bonham-rd., Brixton, u.t. 76 yrs., g.r., 8*l.*, r. 36*l.*, 330*l.*; 30, Chelverton-rd., Putney, u.t., 96 yrs., g r. 7*l.* 10s., 335*l.*—By *Newbon & Co.*: "Sunderland Villa," Romford-rd., Forest-gate, f., 650*l.*; 3 and 5, Englefield-rd., Kingsland, u.t. 29 yrs., g.r. 8*l.* 5s., r. 74*l.*, 625*l.*; 1, Canonbury-grove, Canonbury, u.t. 27 yrs., g.r. 6*l.* 10s., 250*l.*; 37 and 39, Palm-st., Bethnal Green, u.t. 41 yrs., g.r. 6*l.* 6s., r. 57*l.* 4s., 325*l.*; "Rutland House," Colney Hatch-lane, Muswell-hill, f., r. 65*l.*, 625*l.*; "Marsden House," f., r. 50*l.*, 605*l.*; "Claremont House," f., r. 55*l.*, 615*l.*; 10, Mildmay-pk., Stoke Newington, f., r. 46*l.*, 815*l.*; 7 and 11. Hawley-st., Chalk farm, u.t. 39 yrs., g.r. 10*l.* 10s., 520*l.*—By *G. H. Breadmore:* "St. Clears," The Avenue, Kew, u.t. 87 yrs., g.r. 14*l.*, r. 85*l.*, 810*l.* By *E. Stimson*: Freehold building site, Church-rd., Norwood, 1,260*l.*; 11 and 13, Oval-rd., Clapham, u.t. 28 yrs., g.r. 8*l.*, r. 73*l.* 12s., 370*l.*—By *Dyer, Son, & Hilton:* 107, Lewisham-rd., Blackheath, u.t. 31 yrs., g.r. 60*l.*, 5*l.*

JUNE 12.—By *S. Walker & Runtz:* 2 and 4. Palmerston-rd., Forest-gate, u.t. 76 yrs., g.r. 10*l.*, r. 48*l.*, 430*l.*—By *Mansell & Rowe:* "Gloucester House," Church-rd., Norwood, u t. 71 yrs., g.r. 25*l.* 10s., 1,590*l.*—By *C. R. Cross:* F.g.r. of 10*l.* 10s., with reversion in 88 yrs., Grove-villas, Sudbury, 235*l* —By *C. W. Davies*: 93, Culford-rd., Kingsland, u.t. 30 yrs., g.r. 4*l.*, r. 32*l.*, 240*l.*; 19, St. Jude-st., Stoke Newington, u.t. 41 yrs., g.r. 4*l.*, r. 28*l.*, 235*l.*; No. 429, Holloway-rd., u.t. 31 yrs , g.r. 8*l.*, r. 45*l.*, 315*l.*; 72, Seven Sisters-rd., u.t. 14 yrs., g.r. 7*l.*, r. 58*l.*, 335*l.*; 3,1Tyndale-ter., Islington, u.t. 53 yrs., g.r. 6*l.* 10s., r. 45*l.*, 395*l.*

[*Contractions used in these lists.*—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.]

PRICES CURRENT OF MATERIALS.

TIMBER.		
Greenheart, B.G.	ton	8/0/0 9/0/0
Teak, E.I...	load	8/10/0 14/0/0
Sequoia, U.S.ft.cu.		2/3 3/0
Ash, Canada	load	2/10/0 4/5/0
Birch, do.		2/5/0 3/15/0
Elm, do.		3/10/0 4/15/0
Fir, Dantsic, &c.		2/0/0 3/15/0
Oak, do.		2/10/0 4/10/0
Canada		4/17/6 6/10/0
Pine, Canada red		2/10/0 3/10/0
Do, yellow		2/0/0 5/10/0
Lath, D'antsic, fath		5/0/0 6/0/0
St. Petersburg		5/0/0 7/0/0
Deals, Finland, 2nd & 1st std	100	7/15/0 10/10/0
Do, 4th & 3rd		7/5/0 8/5/0
Do. Riga		6/5/0 7/15/0
St. Petersburg, 1st yellow	ton	9/15/0 14/10/0
Do. 2nd yellow		8/5/0 9/5/0
Do. white		6/15/0 10/10/0
Swedish		6/15/0 15/15/0
White Sea		8/5/0 17/5/0
Canada, Pine 1st		13/0/0 24/0/0
Do. do. 2nd		9/0/0 15/10/0
Do. do. 3rd, &c.		6/10/0 10/0/0
Do. Spruce. 1st		8/15/0 11/0/0
Do. do. 3rd & 2nd		6/5/0 7/15/0
New Brunswick		5/5/0 7/5/0
Battens, all kinds		3/10/0 15/10/0
Flooring Boards, sq., 1 in. prep. 1st		0/10/0 0/14/0
Do. 2nd		0/9/0 0/10/6
Other qualities		0/5/0 0/7/6
Cedar, Cuba	..ft.	/4 /4½
Honduras, &c.		/4 /4½
Mahogany, Cuba.		/4½ /6½
St. Domingo, cargo av		/4¾ /6½
Mexican do. do		/4½ /5½
Tobasco do. do		/5¼ /7
Honduras do..		/5½ /6½
Box, Turkey	ton	4/0/0 13/0/0
Rose, Rio		10/0/0 20/0/0
Bahia		9/0/0 18/0/0

TIMBER (*continued*).		
Satin, St. Domingo	..ft.	0/0/10 0/1/3
Porto Rico		0/0/10 0/1/6
Walnut, Italian..		0/0/3½ 0/0/7
METALS.		
IRON—Bar, Welsh, in London..	ton	6/5/0 6/15/0
Do. do. at works in Wales		5/15/0 6/5/0
Do. Staffordshire, in London		6/5/0 7/0/0
COPPER—British, cake and ingot		56/0/0 57/0/0
Best selected		59/0/0 60/0/0
Sheets, strong..		66/0/0 6/0/0
Chili, bars		52/10/0 0/0/0
YELLOW METAL	lb.	0/0/6 0/0/6½
LEAD—Pig, Spanish	ton	12/12/6 12/15/0
English, com. brands		12/15/0 12/17/6
Sheet, English, 3 lbs. per sq. ft. and upwards	..	14/15/0 0/0/0
Pipe		15/5/0 0/0/0
ZINC—English sheet	ton	26/5/0 0/0/0
Vieille Montagne		26/15/0 0/0/0
TIN—Straits		90/10/0 0/0/0
Australian		90/15/0 0/0/0
English Ingots		94/10/0 0/0/0
OILS.		
Linseed	ton	21/17/6 22/5/0
Cocoanut, Cochin		34/0/0 34/10/0
Do. Ceylon		29/5/0 0/0/0
Palm, Lagos		25/0/0 0/0/0
Rapeseed, English pale		30/10/0 0/0/0
Do. brown		28/10/0 0/0/0
Cottonseed ref...		20/15/0 0/0/0
Oleine		21/15/0 24/0/0
Lubricating, U.S.		5/0/0 6/0/0
Do. refined		8/0/0 12/0/0
TAR—Stockholm	barrel	0/19/6 1/0/0
Archangel		0/13/0 0/0/0

TENDERS.

[Communications for insertion under this heading must reach us *not later than* 12 *noon on Thursdays.*]

ASH.—For drainage works at Ash, Kent, for the Eastry Rural Sanitary Authority. Mr. C. H. Beloe, engineer, Westminster:—

Hunter & Bryant	£5,143	Home	£4,199
Coker	4,743	Lloyd	4,069
Lovell	4,550	D. & T. Denne	4,000
Ossenton	4,475	Denne & Son, Deal*	3,588
Hayward & Paramor	4,398	Trollope (withdrawn)	2,787
Wise	4,278		

* Accepted.

BELVEDERE (Kent).—Accepted for the erection of eight workmen's dwellings at Stapley-road, Belvedere, Kent, for Mr. W. Vinson. Mr. G. St. Pierre Harris, architect and surveyor, 1, Basinghall-street, E.C.:—

T. Knight £1,389 0 0

[No competition.]

BOURNEMOUTH.—For the erection of new Borough Offices, Bournemouth. Messrs. Lawson & Donkin, architects, Snaftesbury Hall-chambers, Bournemouth:—

J. White, Bournemouth (accepted) £4,600

BOURNEMOUTH.—For the erection of residence, Branksome-park, for Mr. H. Aldridge. Messrs. Lawson & Donkin, architects:—

T. H. Kingerlee	£2,750	G. Shears & Son	£2,350
Barrow & Entwisle	2,750	J. White, Bournemouth*	2,300

* Accepted subject to modification.

BOURNEMOUTH.—For alterations and additions to No. 103, Old Christchurch-road, Bournemouth, for Mr. Bridge. Messrs. Lawson & Donkin, architects:—

J. White	£425	Jenkins & Sons, Bournemouth (accepted)	£395
Barrow & Entwisle	420		

BOURNEMOUTH.—For alterations and additions to stables, for the Bournemouth, Boscombe and Westbourne Omnibus Company. Messrs. Lawson & Donkin, architects:—

F. Hammett	£472 0	W Scott	£404 19
Barrow & Entwisle	450 0	W. H. C. Curtis	355 0

BOVEY TRACEY (Devon).—For the execution of water supply works, Bovey Tracey, for the Newton Abbot Union Rural Sanitary Authority. Mr. S. Segar, engineer, Union-street, Newton Abbot:—

Shaddock	£1,497 0	Parker Bros	£1,275 0
Vanstone	1,497 0	Best	1,269 4
Jenkins & Son	1,465 16	Hawkings & Best, Teignmouth*	1,265 0
Mardon	1,395 0		

* Accepted.

BOVEY TRACEY.—For the erection of a dwelling-house and blacksmith's shop, Bovey Tracey, Devon, for Mr. J. Moore. Mr. Samuel Segar, architect, Union-street, Newton Abbot:—

Barrow	£396 16	Pomeroy	£297 0
Zealley	375 0	Davie & Palfrey, Bovey Tracey (accepted)	260 0
Winser & Turner	298 0		

BRAMPTON (Cumberland).—For the erection of a bridge over the River Cairn, in the parishes of Hayton & Cumwhitton, for the Brampton Rural Sanitary Authority. Mr. Isaac Noble, Surveyor, Union Offices, Brampton:—

Thomas Telfer, Langholm, Scotland (accepted) .. £943 10 0

BRENTFORD.—For making-up eastern portion of Lateward-road, for the Brentford Local Board. Mr. J. H. Strachan, Surveyor:—

Nowell & Robson	£377 0 0	John Ball, Chiswick*	£293 12 4

* Accepted.

BRENTFORD.—For making-up Staruage-road East, for the Brentford Local Board. Mr. J. H. Strachan, Surveyor:—

Nowell & Robson	£258 0 0	John Ball, Chiswick*	£206 17 6

* Accepted.

BRENTFORD.—For delivering on wharf 800 yards of Kentish pit flints, for the Brentford Local Board. Mr. J. H. Strachan, Surveyor:— *Per Yard.*

J. Horsford & Co., Faversham	5s. 4d.
G. Pearce, Brentford (accepted)	5 4

BRENTFORD.—For delivering on wharf 1,500 yards of broken Guernsey granite for the Brentford Local Board. Mr. J. H. Strachan, Surveyor:— *Per Yard.*

Trickett & Sons	17s. 6d.
Griffiths	15 6
Manuelle	15 3
Feunings	15 3
Nowell & Robson	15 1
Mowlem & Co. (accepted)	14 11

BRIGHTON.—For the erection of a clock tower in Preston Park. Mr. Francis J. C. May, Borough Surveyor, architect:—

G. R. Lockyer	£1,531	V. P. Freeman	£1,296
J. T. Chappell	1,370	Longley & Co.	1,295
J. Barnes	1,344	Patching & Son, Brighton*	1,283
J. J. G. Saunders	1,319		

* Accepted.

[Exclusive of the cost of the clock.]

BURNHAM (Somerset).—For the erection of a new building, comprising reading, billiard, smoking, and caretaker's rooms, &c., for the Committee of the Burnham Institute. Mr. F. Castle Gant, architect, Alfred-street, Burnham:—

		Extra for Bay-windows.
G. Randell	£549 0 0	£566 0 0
J. Keats (accepted)	495 0 0	529 0 0

CANNOCK.—For erecting a covered way, bath and lavatories, for the aged and infirm women's ward, and painting, &c., at the Union Workhouse, Cannock. Mr. J. R. Veall, architect, Wolverhampton:—

Bradney & Co.	£250 0 0	Gough, H.	£208 18 5
C. Linford	240 0 0	J. Reynolds, Cannock,*	204 0 0
A. Gilbert	214 1 9		

* Accepted.

CROYDON.—For erecting Polytechnic Institution in the Scarbrook-road, for the Croydon Corporation. Mr. George Frisch, architect, 64, Cannon-street, E.C.:—

Akers	£3,100	Bullock	£2,097
Bryan	2,970	E. J. Saunders	2,598
Smith & Sons	2 857	G. H. Martin & Co., West Croydon	2,38
Batley & Linfoot	2,840		
Barker	2,700		

FAREHAM (Hants).—For the erection of shops, &c., West-street, Fareham, for Misses Howard. Messrs. Lawson & Donkin, architects, Bournemouth:—

J. Plummer	£815 0 0	G. H. & A. Blackman, Fareham*	£619 0 0
E. Tutte	715 0 0		
J. Gamblin	648 17 9		

* Accepted.

FOOT'S CRAY.—For the erection of twelve workmen's dwellings at Foot's Cray, Kent. Mr. G. St. Pierre Harris, architect and surveyor, 11, Basinghall-street, E.C.:—

T. Knight	£2,747	C. Stebbings*	£2,595
Somerford & Son	2,578	W. Owen (withdrawn)	2,016

* Accepted with modifications.

HEREFORD.—For additions to the "Grange," Hereford. Mr. G. H. Godsell, architect, Hereford:—

W. P. Lewis & Co.	£135 10 0
R. Andrew & Son, Hereford (accepted)	132 15 0

LAMPETER.—Accepted for building judges' lodging and residential house at Lampeter, for Mr. David Lloyd, Peterwell. Mr. D. Jenkins, architect, Llandilo:—

D. Evans & Sons, Llanddewi-brefi £2,050 0 0

LEDBURY (Hereford).—For alterations and additions to Brouail House, near Ledbury. Mr. G. H. Godsell, architect, Hereford:—

W. P. Lewis & Co., Hereford (accepted) £1,650 0 0

[Lowest of three tenders.]

LEEDS.—Accepted for the erection of Mission Hall, at Hare Hill's road, Leeds, for the trustees. Messrs. John Hall & Son, architects' 89, Albion-street. Quantities by architects:—

Bricklayer and Mason—W. & H. Lane	£500 0 0
Joiner and Carpenter—B Mawson	230 0 0
Plumber and Glazier—J. W. Wilson	103 0 0
Slater—T. E. Heavysides	76 18 0
Plasterer—R. Branton	57 0 0
Painter—W. Grisdall	18 17 6
Hot Water—Thomas Green & Sons, Limited	43 0 0
	£1,028 15 6

[All of Leeds.]

LEEK.—For alterations to houses at Leek. Messrs. W. Sugden & Son, architects. Accepted tenders:—

For Mr. W. Johnson—Knowles, W. Hudson, and G. T. Stevenson, £479.

For Mr. Jno. Sheldon—G. T. Stevenson, £115; and Herbert Hall (day-work).

LEICESTER.—For the erection of a block of ten almshouses on the Clarendon Park-road, including laying-out grounds, drainage, water supply, &c. Mr. J. R. Veall, architect, Wolverhampton:—

H. Willcock	£1,748 4 7	Bradney & Co.	£1,555 0 0
H. Lovatt	1,612 8 8	T. Harris	1,543 6 0
T. & H. Herbert	1,591 10 0	J. O. Jewsbury, Leicester (accepted)	1,491 10 0
Hutchinson & Son	1,571 17 6		

LLANDILO.—Accepted for building a dwelling-house at Crescent road, Llandilo, for Messrs. Thomas & Sons, Llandilo. Mr. D Jenkins, architect, Llandilo:—

Alfred Meredith, Newbridge-on-Wye £600 0 0

LLANDILO.—Accepted for building a pair of semi-detached cottages at Rhosmaen, Llandilo, for Dr. Lloyd Morgan, Rhosmaen. Mr. D. Jenkins, architect, Llandilo:—

Alfred Meredith, Newbridge-on-Wye £310 0 0

LONDON.—For the erection of three houses at Gayford-road, Starch Green, for Mr. S. Fortescue. Mr. J. H. Richardson, architect:—

Wilkinson	£1,100 0 0	Lyford	£990 0 0
Boarder	1,040 0 0	Lundy*	748 17 6
F. R. Tozer	1,028 0 0		

* Accepted.

LONDON.—For the erection of dwellings, Silver-street, Goldea-square, Hampstead, for Mr. Henry Humphreys. Mr. Albert E. Pridmore, architect, 2, Broad-street-buildings, E.C. Quant ties by Mr. Alfred Griggs:—

Ruff & Son	£1,397 0	Wiltshire	£890 0
Taylor & Son	1,247 0	H. King & Co.	876 10
Pearce & Ellis	1,149 0	Lundy & Co.*	830 0
W. A. Hudson	1,097 0		

* Accepted.

LONDON.—For building house and boundary-wall at Prior-street, Greenwich, for Mr. Jennings. Mr. E. Crosse, architect:—

Bridle	£540 0 0	Gorham	£423 15 0
A. W. White & Co.	529 0 0	Martin	420 0 0

LONDON.—For repairs and painting to three houses, Suffolk-street, Rotherhithe, for Mr. Johnson. Mr. E. Crosse, architect:—

Almond	£140 0 0	Smithers	£118 10 0
A. W. White & Co.	128 0 0		

LONDON.—For pulling down and rebuilding the "Jolly Sailor" public-house, Lower-road, Rotherhithe, for Messrs. Courage & Co. Messrs. Stock, Page, & Stock, architects. Quantities by Messrs. Widnell & Trollope:—

Jocelyn & Co.	£2,780	J. Down	£2,550
W. & H. Castle	2,593	Holloway	2,543
A. W. White & Co.	2,579	B. Wells	2,530

LONDON.—For the erection of factory at Hoxton Market, Shoreditch, N., for Messrs. Ernest Smith & Sons. Mr. John Job Wood, architect and surveyor, 4, Khyber-road, Battersea, S.W.:—

Bowyer	£2,197	Nightingale	£1,840
Barker	1,890	Turtle & Appleton	1,745

[Architect's estimate, £1,675.]

LONDON.—For repairs, &c., at the "Prince Alfred" public-house, Lower Sydenham. Mr. F. West, architect:—

Bryan & Son	£235 0	Gardiner & Llewllyn	£210 7
Watson & Son	219 10	Waddington & Co.	203 0

LONDON.—For stabling, workshops, &c., in rear of the "Royal Oak," New-road, for Mr. Loader. Mr. Henry H. Church, architect, Woolwich:—

Proctor	£480	Multon & Wallis*	£404
Hutton	428		

* Accepted.

LONDON.—For re-building No. 71, New-road, Woolwich, for Mr. J. Glover. Mr. Henry H. Church, architect, Woolwich:—

Multon & Wallis	£525	Coombs (accepted)	£478

LONDON.—For stabling, workshops, stores, and van-sheds, in Union-street, Woolwich, for Messrs. Garrett & Co., Limited. Mr. Henry H. Church, architect, Woolwich. Quantities by Mr. W. H. Strudwick:—

Allen & Sons	£2,395	Multon & Wallis	£2,098
Kirk & Randall	2,192	Dabbs	2,038
Jerrard	2,129	Munday & Sons	2,016
Morter	2,105	H. L. Holloway*	1,943
Chapman	2,043		

* Accepted.

LONDON.—For works at the Middlesex Music-hall, Drury-lane, Nos. 3, 5, and 7, Shelton-street, and Nos. 168 and 169, Drury-lane, for Mr. J. L. Graydon. Mr. Alfred Wright, architect and surveyor, 63, Kennington-road, S.E.:—

J. Marsland	£5,255	F. Voller	£4,800
Leslie & Co.	4,966	Allen & Sons	4 770
Johnson & Co., Limited	4,950	J. Tyerman	4,637
Peacock Bros.	4,886		

LONDON.—For erection of schools for 310 children, at Pembroke-road, Kilburn, for the Rev. M. J. Shimmers. Mr. Richard D. Hansom, architect, The Red Tower, Kilburn. Quantities by the architect:—

Cowley & Drake	£3,050	Stimpson & Co.	£2,866
H. B. Oldrey	2,895	George Neal	2,711

LONDON.—For the erection of new billiard-room and bar alterations at the "Golden Horse," Forest-lane, Forest-gate, for Mr. H. Capon. Mr. A. W. Corby, architect, 150, Osborne-road, Forest-gate:—

Walker	£690 0 0	Littlefield	£375 0 0
Painter	548 10 0	Whitty*	370 0 0
Ling	437 0 0		

* Accepted.

LONDON.—For pulling down and re-building Nos. 1 and 2, King-street, Cam den-town, N.W., for Mrs. Lack. Mr. W. Brown, surveyor, Hope Cottage, Inkerman-road, N.W.:—

Richard Tipton, 33, Endell-street, W.C. (accepted) £987 0 0

[No competition].

LONDON.—For the erection and completion of four houses at Forest-gate. Mr. C. E. Jackson, architect, 185, Grove-road, Victoria-park:—

Edmonds	£1,489	North Bros.	£1,176
G. Barker	1,240	Boney	1,115
Hoskins	1,193	Everard	947

LONDON.—For erecting new Superintendent's lodge, Battersea Park, for the London County Council. Mr. Thos. Blashill, Architect:—

Garrett & Son	£939 0 0	Rowe Bros.	£835 0 0
Akers & Co.	905 0 0	Lapthorne & Co.	827 0 0
Wallis	843 0 0	Leslie & Co.	809 0 0
Lye	882 16 4	Hammond	777 0 0

LUSTLEIGH (Devon).—For the erection of a house at Lustleigh, for Mr. J. Elliott. Mr. Samuel Segar, architect, Union-street, Newton Abbot:—

J. Pomeroy	£325	Davie & Palfrey	£152
Zealley	295	Call	143
Lamb	255	Parker & Son, Lustleigh*	136
Winser & Turner	198		

* Accepted.

NEWTOWN (N.W.)—For the erection of a house and shop and other works, for Mr. John Jones. Mr. Edward Parke, architect. Quantities by architect:—

H. C. Phillips	£420 0	Morris & Sons	£406 0
E. Davies & Son	406 18	J. Williams (accepted)	379 18

NEWTOWN (N.W.)—For the erection of a class-room and other works to the boys' school, New-road, for the School Board. Mr. Edward Parke, architect. Quantities by the architect:—

E. Davies & Son	£304	Morris & Sons (accepted)	£284
J. Williams	298	[All of Newtown].	

NORTON-IN-THE-MOORS (Stafford):—For new infants' school at the National Schools. Messrs. Ralph Dain & Son, architects, Hanley:—

J. Moss	£338	G. C. Dunn, Burslem (accepted)	£300
J. J. Longden	305		

ST. LEONARDS.—For erecting residence and stable on the Filsham Estate, St. Leonard's-on-Sea, for Mrs. W. F. Hunt Messrs. Elworthy & Son, architects, St. Leonard s-on-Sea. Quantities by the architects:—

	House.	Stable.
E. Boniface	£2,606 0	£484 0
H. Cruttenden	2,588 0	474 0
C. Harman	2,600 0	450 0
Eldridge & Cruttenden	2,570 0	399 0
F. Jenkins	2,497 7	434 13
C. Hughes	2,480 0	410 0
A. H. White (accepted)	2,365 0	428 0

SHERBORNE.—Accepted for the erection of a printing factory (in the Yeovil-road, Sherborne (after alterations in plans and specifications), for Messrs. J. C. & Alfred Sawtell. Mr. Thomas Farrell, architect, Newland, Sherborne:—

Lye & Son, Crewkern, Somerset £653 0 0

[Four other tenders received.]

SILVERTOWN.—For the erection of new warehouse, Tay Wharf, for Messrs. Jas. Keiller & Son. Mr. J. O. Cook, architect, 1A, Eleanor-road, Woolwich. Quantities by Mr. C. W. Brooks, 63, Finsbury-pavement, E.C.:—

Atherton & Latta	£4,410 0	W. Harris	£3,594 17
Smith & Sons	4,033 0	J. O. Richardson	3,558 0
Mutton & Wallis	3,820 0	H. Stiff	3,500 0
Woodward & Co.	3,798 0	Kirk & Randall, Woolwich (accepted)	3,212 0
H. L. Holloway	3,780 0		
Thos. Little	3,679 0		

WEST HAM.—For paving the High-street, Stratford, from Martin-street to Bridge-road, for the Corporation of West Ham. Mr. Lewis Angell, M.Inst.C.E., Borough Engineer, Town-hall, Stratford, E.:—

	As per schedule.
G. G. Rutty	£2,552 18 10½
Turner, Son, & Evanson	2,077 3 3
W. Griffiths, Kingsland (accepted)	2,056 7 4½

WIDNES.—For the erection of a cart-shed, for the Widnes Loca Board. Mr. J. S. Sinclair, Surveyor, Widnes:—

Sayce & Randle, Widnes (accepted) £187 17 5

WIDNES.—Accepted for excavating, pitching, sewering, paving, flagging, &c., certain streets, for the Widnes Local Board. Mr. J. S. Sinclair, Surveyor, Widnes:—

Cowburn & Harris, Bedford Leigh	Contract No. 1	£2,908 3 0
	Contract No. 2	1,836 1 0
Peter Balmer, Aintree, Liverpool	Contract No. 3	1,496 10 0
	Contract No. 4	1,096 10 0
	Contract No. 5	722 10 0

WOLVERHAMPTON.—For reinstating warehouses and offices at the Crane Foundry, Horseley-fields, partially destroyed by fire. Mr. J. R. Veall, architect, Wolverhampton:—

Bradney & Co.	£651	H. Willcock	£635
H. Lovatt	647	H. Gough, Wolverhampton *	590

* Accepted.

WOLVERHAMPTON.—For the erection of a villa, at Bushbury, for Mr. A. Staveley Hill, Q.C., M.P. Mr. Joseph Lavender, A.R.I.B.A., architect, Wolverhampton:—

Muirhead	£975 0 0	Bradney & Co.	£799 0 0
H. Willcock	885 0 0	H. Gough, Wolverhampton*	795 0 0
G. Cave	868 0 0		
B. Guest	848 7 6		

* Accepted.

WORCESTER.—For the erection of additional buildings, to accommodate 140 patients, to the Worcester County and City Lunatic Asylum. Messrs. H. Rowe & Son, architects, Worcester-chambers, Pierpont-street, Worcester:—

Stephens, Bastow, & Co.	£10,699	Willcock	£9,175
Thompson	9,523	Wood & Son, Worcester*	8,973
Everal	9,493	Horton	8,892
Jones & Co.	9,249	Barnsley	8,765
Lovatt	9,197		

* Accepted.

WORCESTER.—For the erection of three pairs of cottages, in connexion with the Worcester County and City Lunatic Asylum. Messrs. H. Rowe & Son, architects, Worcester:—

Stephens, Bastow, & Co.	£1,993	Everal	£1,595
Lovatt	1,777	Barnsley	1,590
Horton	1,698	Thompson	1,565
Jones & Co.	1,694	Wood & Son, Worcester*	1,557
Willcock	1,650		

* Accepted.

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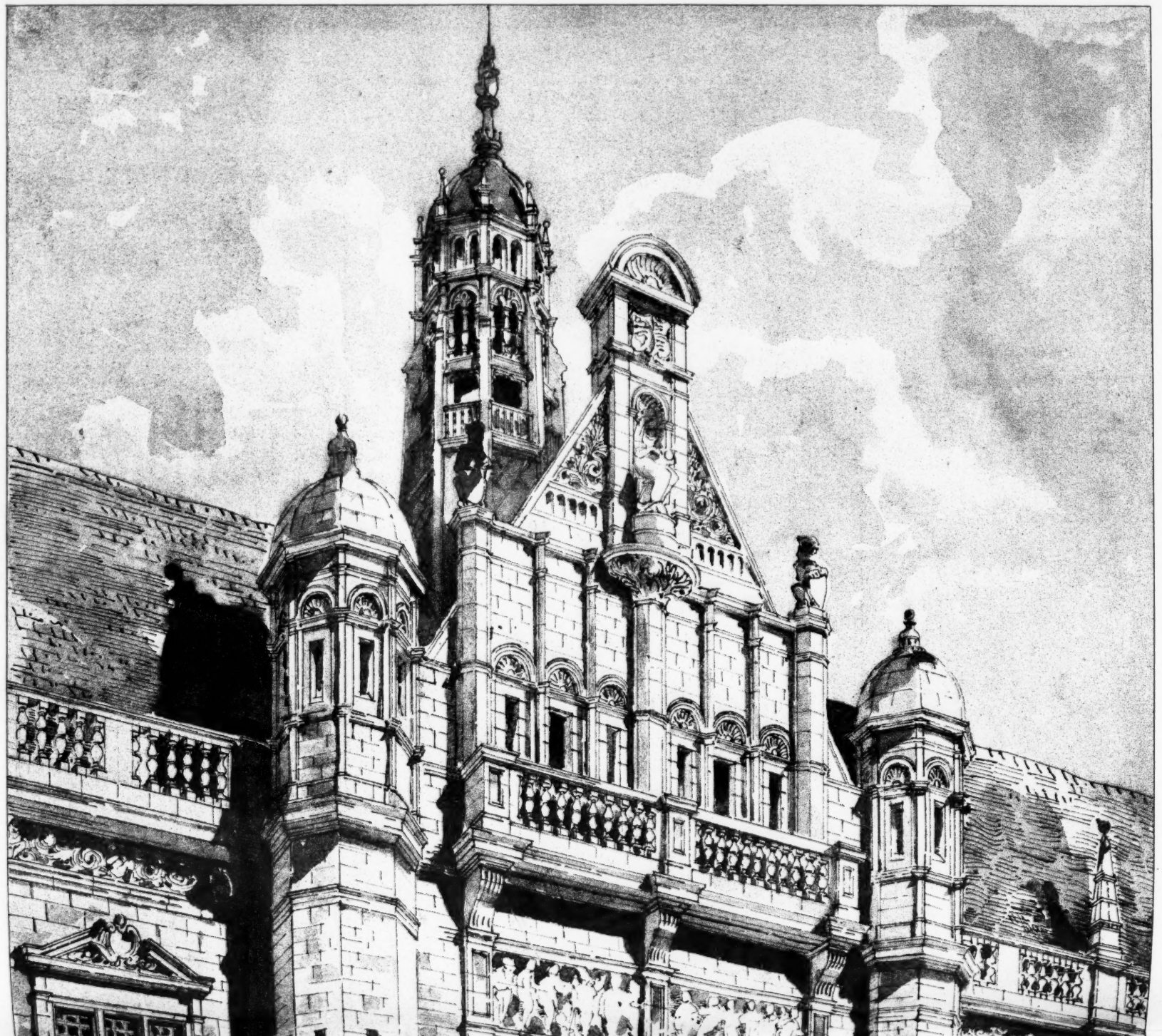

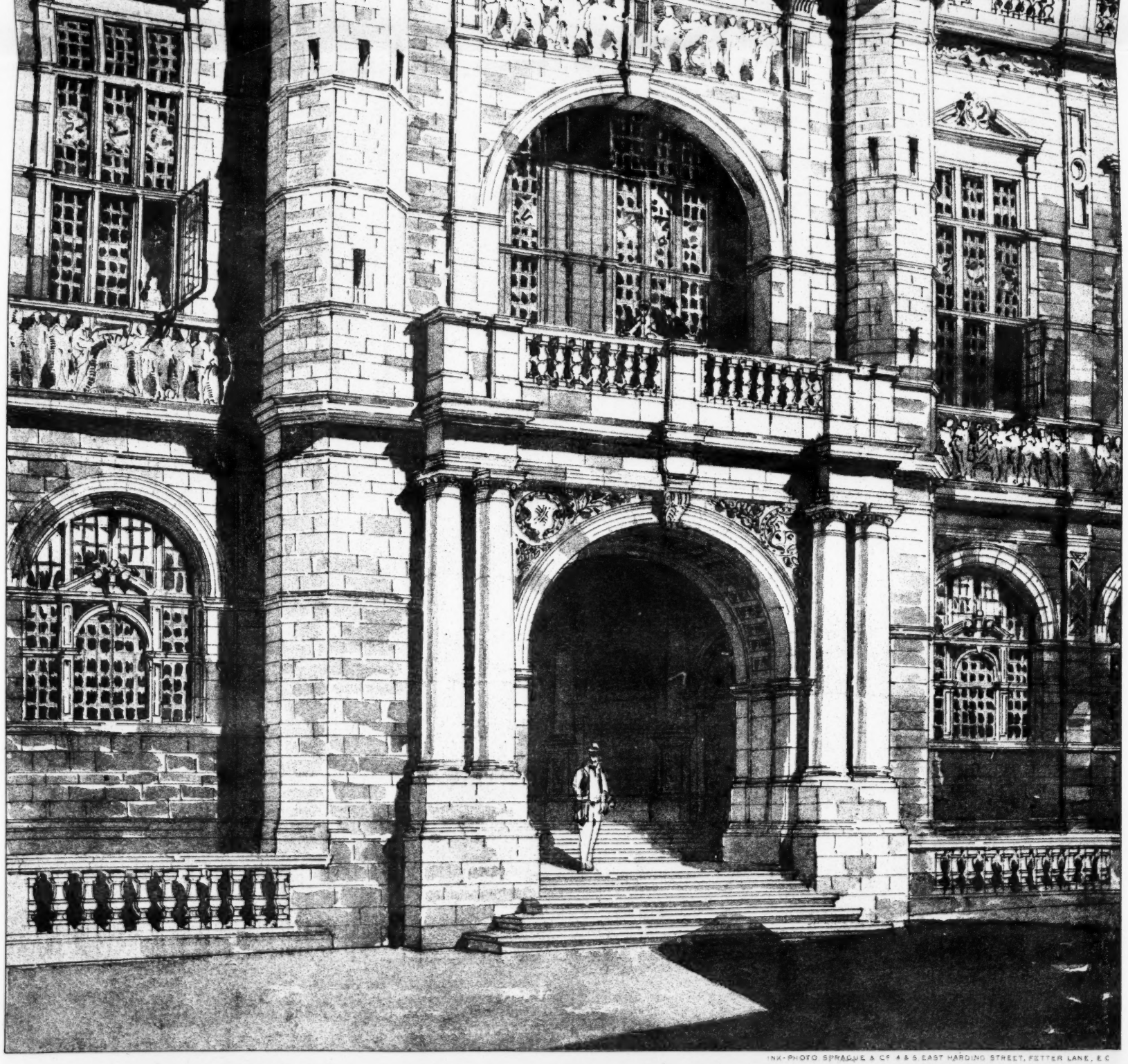

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No. 1878, Royal Academy Exhibition, 1891.

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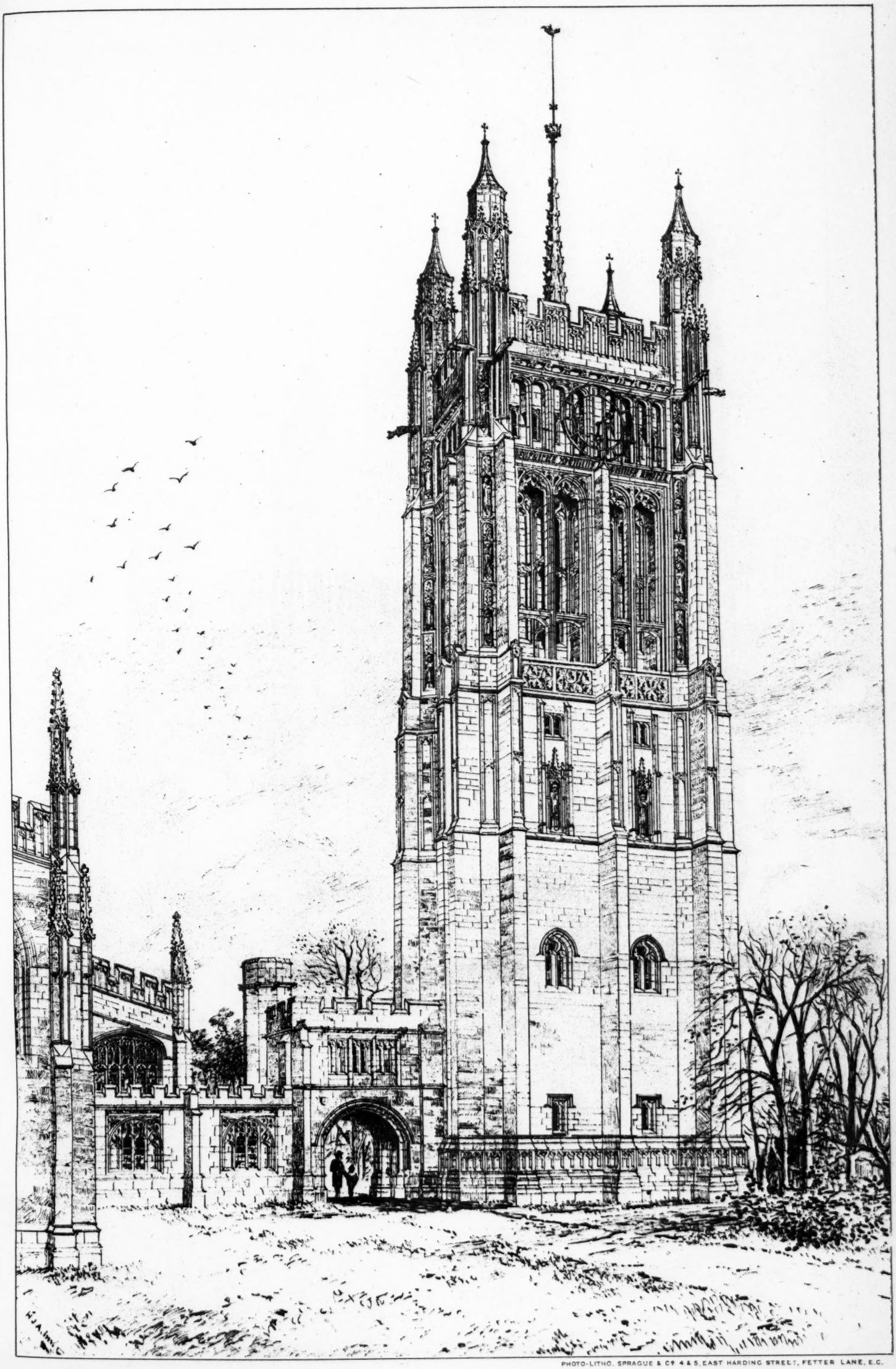
PROPOSED NEW BELL-TOWER, ST. MICHAEL'S, COVENTRY.—Messrs. PALEY & AUSTIN, ARCHITECTS.

(View showing grouping of new Tower with two of the ancient Coventry Spires.)



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LONDON COUNTY COUNCIL MUNIC

ELEVATION TO PARKER ST.

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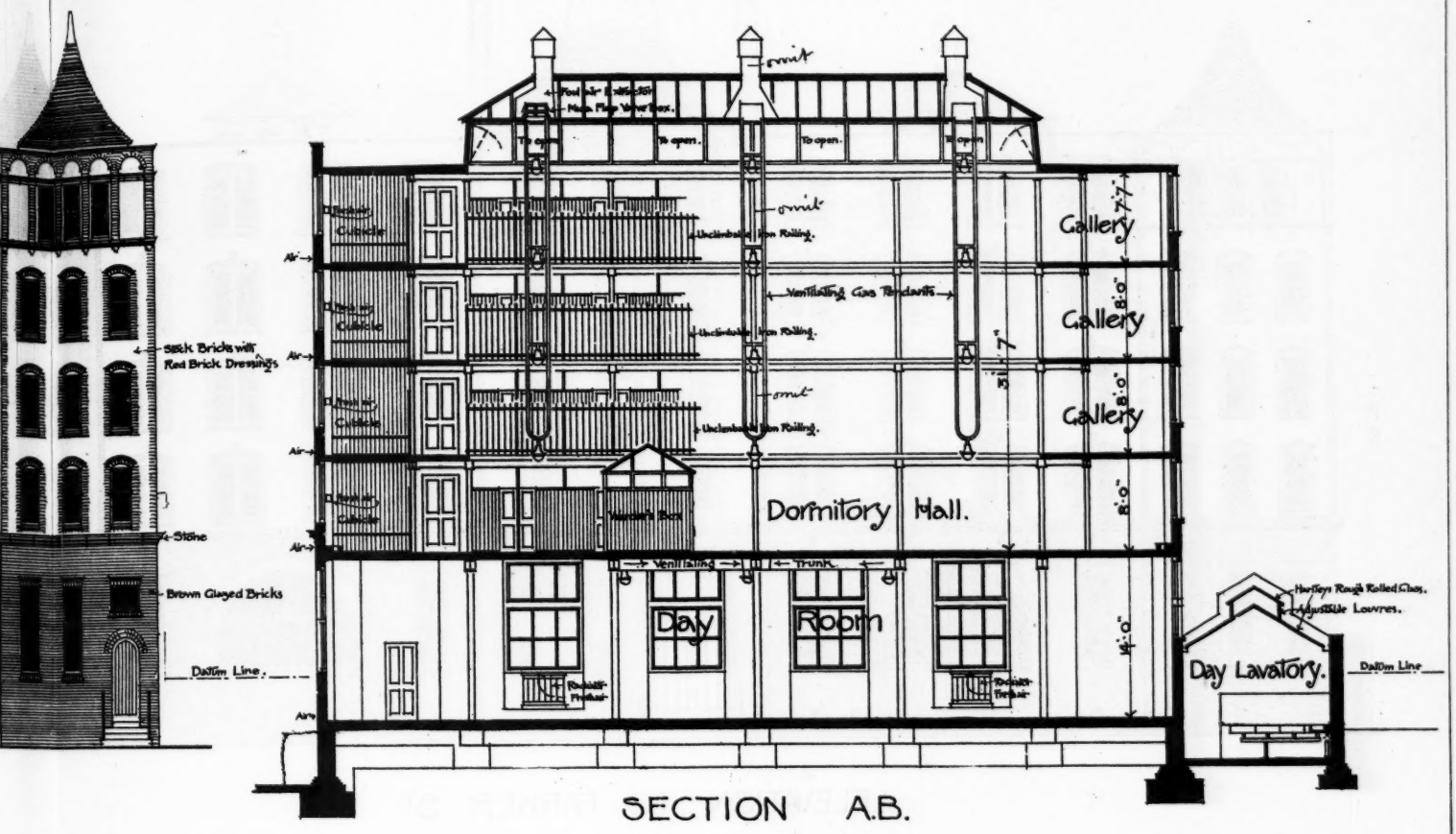

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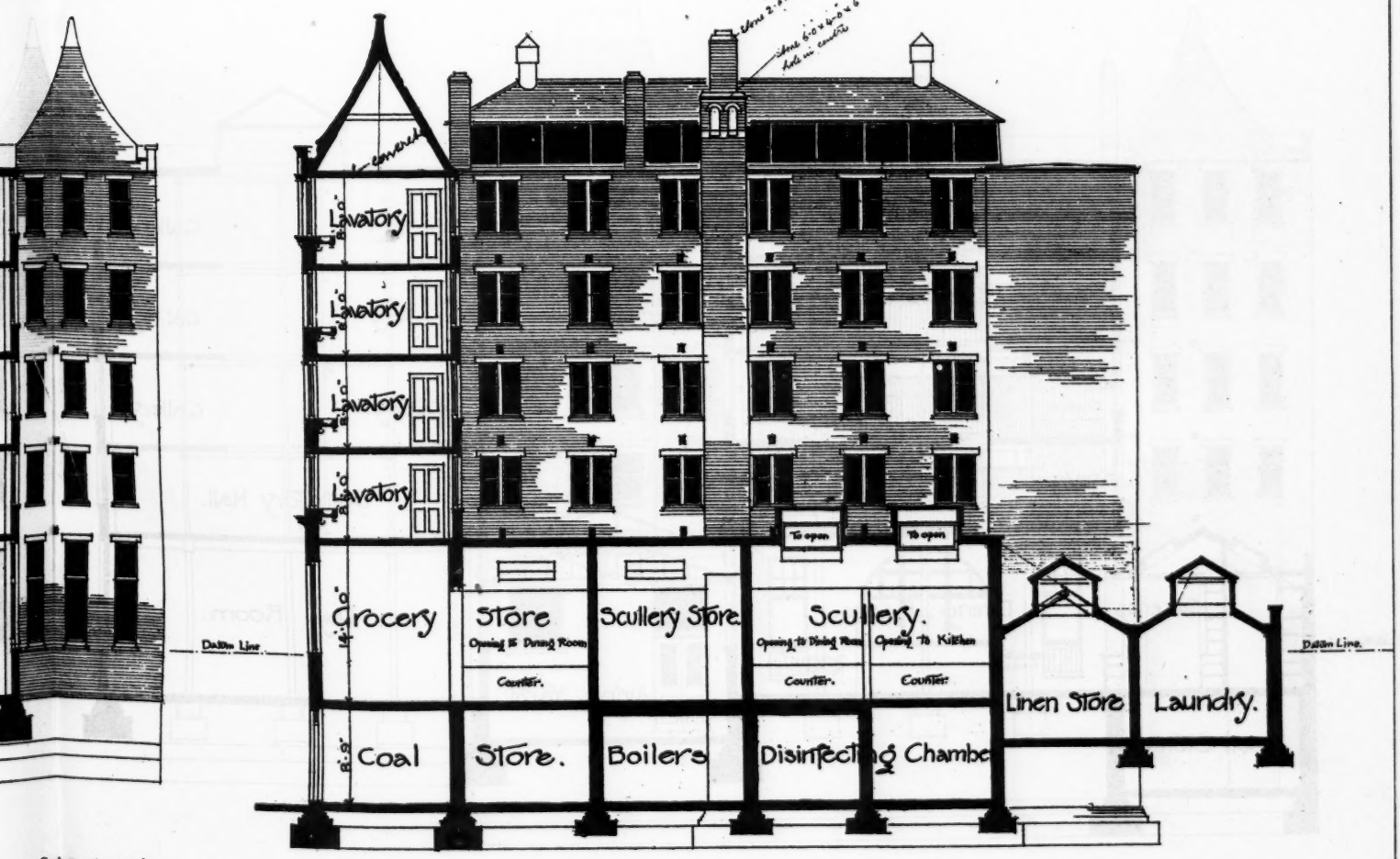

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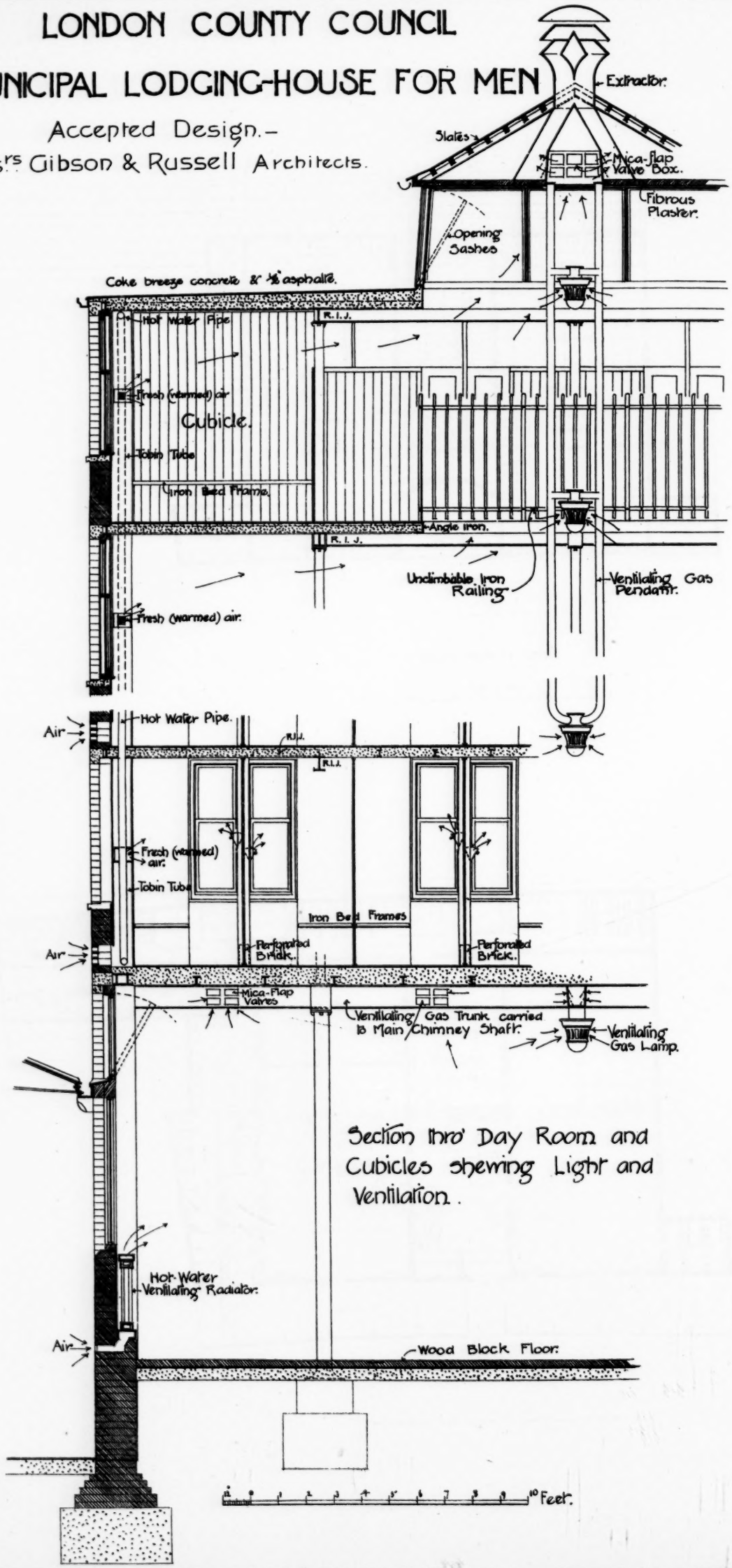
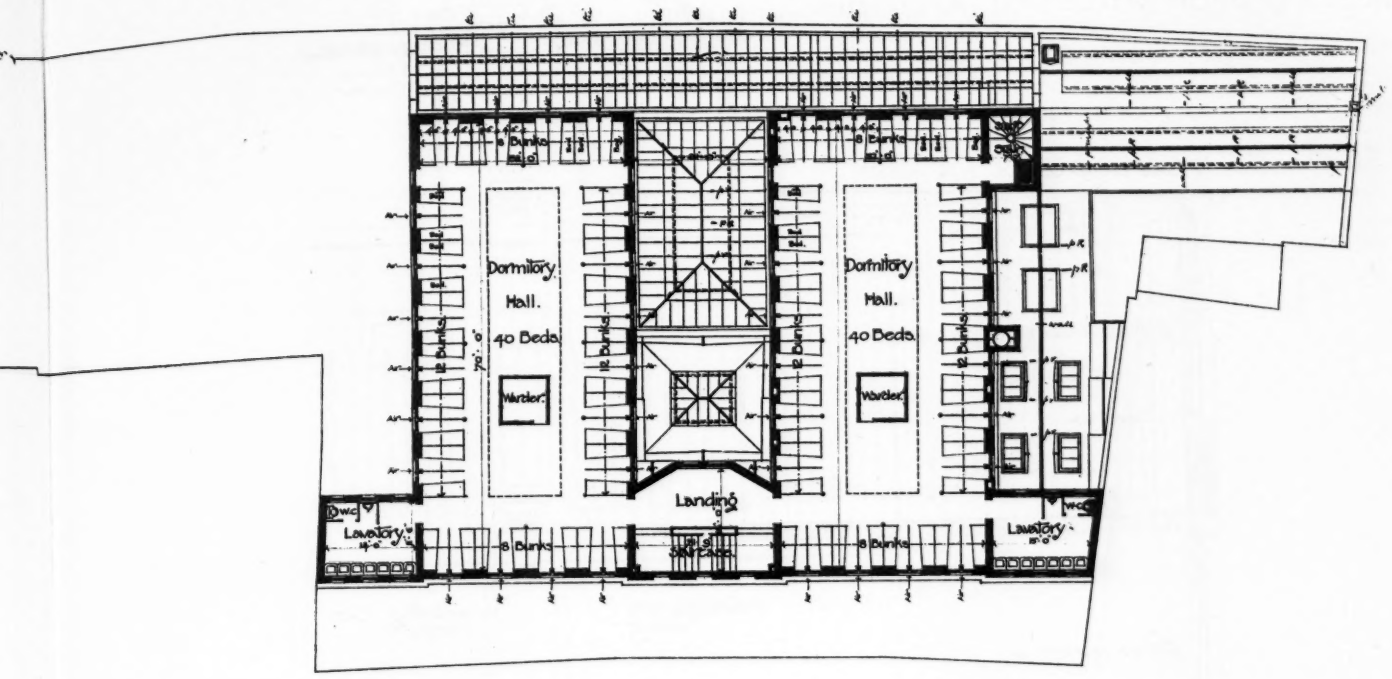
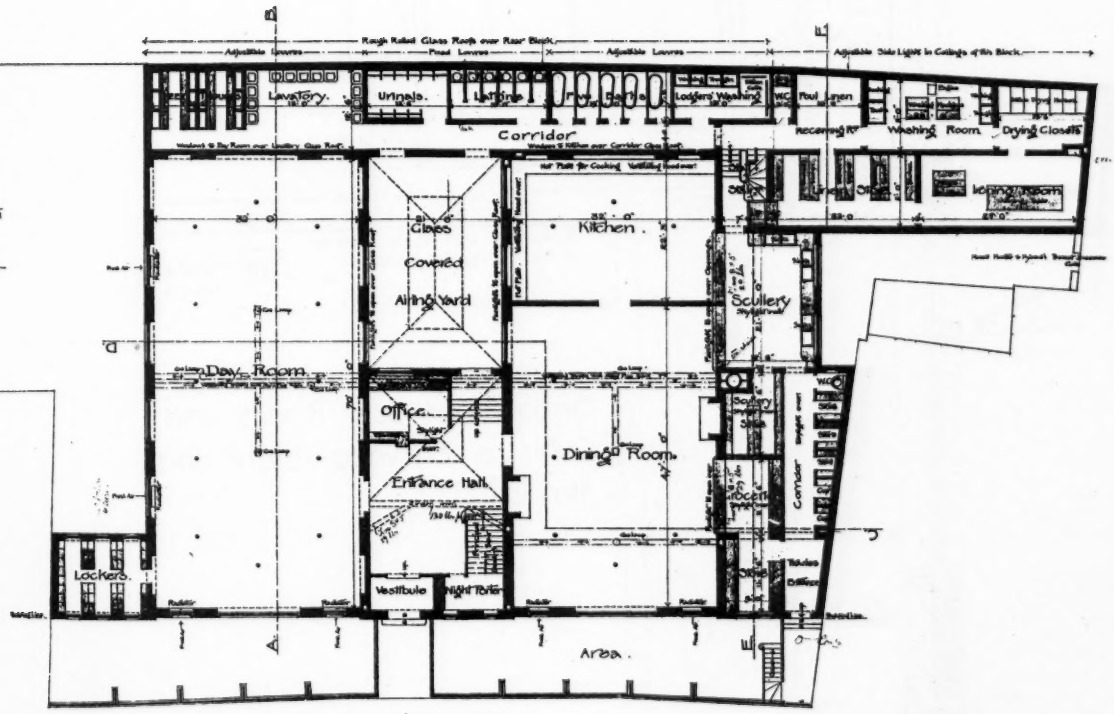


Section thro' Day Room and Cubicles shewing Light and Ventilation.



FIRST FLOOR PLAN

Scale of Feet



GROUND FLOOR PLAN.

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